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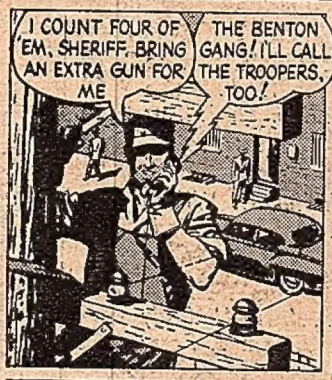

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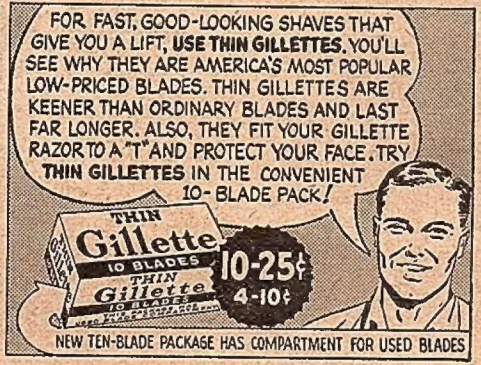

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RAILROAD

MAGAZINE

Originally Railroad Man's Magazine, founded 1906

January, 1950 Vol. 50, No. 4 35 Cents

Cover: ***Better Grade for the Big G (Great Northern)***
By Herb Mott

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Published monthly by Popular Publications, Inc., at 1125 East Vaile Ave., Kokomo, Indiana. Editorial and Executive Offices, 205 East 42nd Street, New York 17, N. Y. Henry Steeger, President and Secretary. Harold S. Goldsmith, Vice-President and Treasurer. Entered as second-class matter at the Post Office at Kokomo, Indiana. Copyright 1949, by Popular Publications, Inc. This issue is published simultaneously in the Dominion of Canada. Copyright under International Copyright Convention and Pan-American Copyright Conventions. All rights reserved, including the right of reproduction, in whole or in part, in any form. Title registered in U. S. Patent Office. Single copy, 35c. Annual subscription for U. S. A., its dependencies, and Canada, Mexico and Cuba, $3.50; other countries, 75c additional. All correspondence relating to this publication should be addressed to 1125 East Vaile Ave., Kokomo, Indiana, or 205 East 42nd St., New York 17, N. Y. When submitting manuscripts, enclose stamped, self-addressed envelope for their return, if found unavailable. The publishers will exercise care in the handling of unsolicited manuscripts, but assume no responsibility for their return. Printed in the U. S. A.

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To People who want to write

but can't get started

Do you have that constant urge to write but fear that a beginner hasn't a chance? Then listen to what the former editor of *Liberty* said on this subject:

"There is more room for newcomers in the writing field today than ever before. Some of the greatest of writing men and women have passed from the scene in recent years. Who will take their places? Who will be the new Robert W. Chambers, Edgar Wallace, Rudyard Kipling? Fame, riches and the happiness of achievement await the new men and women of power."

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RIGHT By DIRECTION

By PETER JOSSERAND

"HERE Y'ARE." Operator Johnson handed Conductor Olson a handful of flimsies.

"Hanford," Olson snarled as he wrote the engineer's name on the register. "Hungry Hanford! Every time I catch that pighead I get in a fight with him."

"Thought he was a good man," Johnson ventured.

"Handles an engine well enough," the skipper admitted, "but he's the most hard-headed fellow I ever met. Have to watch him—if he thinks his orders entitle him to go, believe he'd drive his engine into a head-on collision, even if he knew for sure the dispatcher had out a lap. No caution."

"Good rules man, isn't he?" the op queried.

"Yep, have to admit it. But one of these days he's going to slip up on one and cause a wreck to end all wrecks. I watch him like a hawk."

"Well, you better look 'em over close tonight," said Sparks as he turned back to his desk. "There's a new detainer working, just hired out tonight. Multiple-track man from back east, and I don't believe he knows his stuff."

Olson read the orders carefully before taking the engineer's copies down to him. He handed them to Hanford, who read them, turned them over to his fireman without comment, and whistled off.

"I'd like to make a milepost out of that flat-footed brakeman with the conductor's badge," Hanford mumbled to himself as he cracked the throttle of the big *Mike*. Then he yelled to the tallowpot:

"See anything wrong with those orders, son?"

"Nope."

(Continued on page 8)

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(Continued from page 6)

"Read those last two orders again." The fireman read them:

ORDER No. 131

Eng 3142 run extra H to A

ORDER No. 136

Eng 2150 run extra A to H
and wait at
C eleven twenty 11:20 p.m.
D eleven thirty 11:30 p.m.
E eleven fifty 11:50 p.m.
F twelve ten 12:10 a.m.
for Extra 3142 West

"Figure we can go to E for Extra 2150 East," the fireman ventured after consulting his watch.

"Would you head in at E on that order?" Hanford queried.

"Yep," the fireman grinned. "Extra 2150 East has right by direction over us and we have to clear them."

"That's what Olson thinks, too, I reckon," the hogger widened on the throttle. "Both of you better go back to the rule car. The detainer has out a lap. I've got a running order to A and that's where I'm going."

Knowing Hanford's temper, the tallow-pot handed back the orders without reply. But he was nervous; and as the hogger rounded the curve approaching E at 11:40 p.m., the throttle still far out on the quadrant and without touching the brake valve, he crossed the cab.

"Aren't you going to head in here for Extra 2150 East?"

"Extra 2150 East isn't superior to me and my orders say go to town. That's where I'm going, far as I'm concerned."

But Conductor Olson pulled the air. Hanford closed the throttle, let the train come to rest and waited. He didn't have long—Olson came at a dog-trot.

"What the hell is the matter with you, Hanford!" he yelled at the hogger. "Every trip I catch with you, it's something. Get started," he told the brakeman, "and flag that 2150. We'll put them through the siding."

"What was I to head in here for?" Hanford asked the irate skipper.

"That 2150 East, of course," bellowed Olson. "Nothing except an overdue superior train. Where were you going for them?"

"To A," Hanford replied. "That's what my orders say. And they don't say anything about Extra 2150 East having right over me, so I don't have to clear any waits they hold."

"You know that eastward extras have right of track over westward extras, don't you? No. 2 is superior to No. 1 by direction, is it?"

"Don't strain that thimbleful of brains you have," the hogger retorted. "No. 2 is superior to No. 1 by direction because they're trains of the same class. Extras have no class. And the rules say they will be governed by train orders with respect to opposing extras. Right is the only superiority that can exist between extra trains—and that's train orders. And there's nothin' in my orders that say Extra 2150 East has right over me."

"You'd take the siding if you held a meet with Extra 2150 East?"

"Yep, the rules cover that. But that applies to Form S-A, the meet order."

"You know you'd have gotten hit if I hadn't stopped you," said the skipper, as Extra 2150 East came around a curve and answered the flagman's signal.

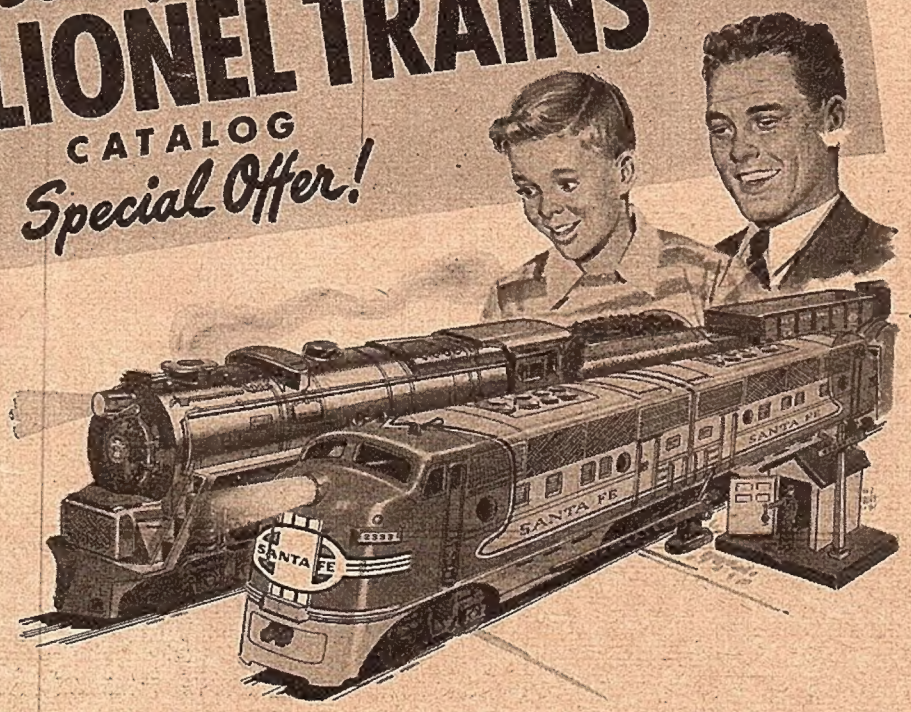
"Sure," Hanford agreed. "I figured the dispatcher had out a lap and I was all set to join the birds. It isn't up to me to question the orders they give me—when the orders say go, that's what I do. And that's what my orders say. That 2150 hasn't right over me any more than I have right over them."

"I'm going to take great pleasure in writing this up," Olson snarled, "and I'll be seeing you at the investigation."

What do you think was the super's decision after the investigation? Did Hanford's orders constitute a lap, or was this the time Olson predicted he would slip up?

(Turn to page 139 for the solution.)

Send for this LIONEL TRAINS CATALOG *Special Offer!*



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YEARS FOR MINUTES

A Half Century of Passenger Schedules

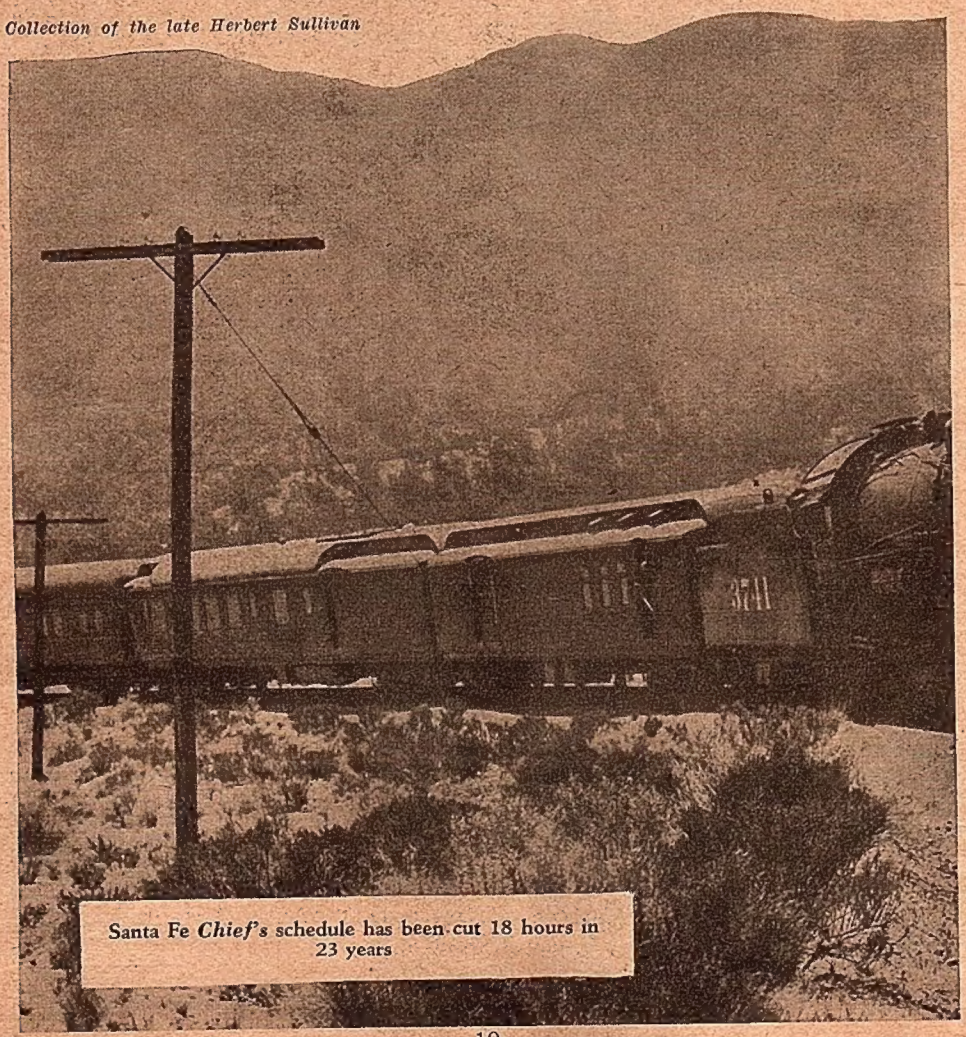
HEADLINED "Flying Over The Rails" in the New York *Times* of August 7, 1888, was the story of the run made on the previous day by the *West Coast Flyer* from London to Edinburgh, a distance of 400 miles, in 7 hours and 52 minutes, calling for an average speed of 51 miles an hour!

This event marked an early stage in a series of thrilling races to the Scottish capital staged by the East Coast and West

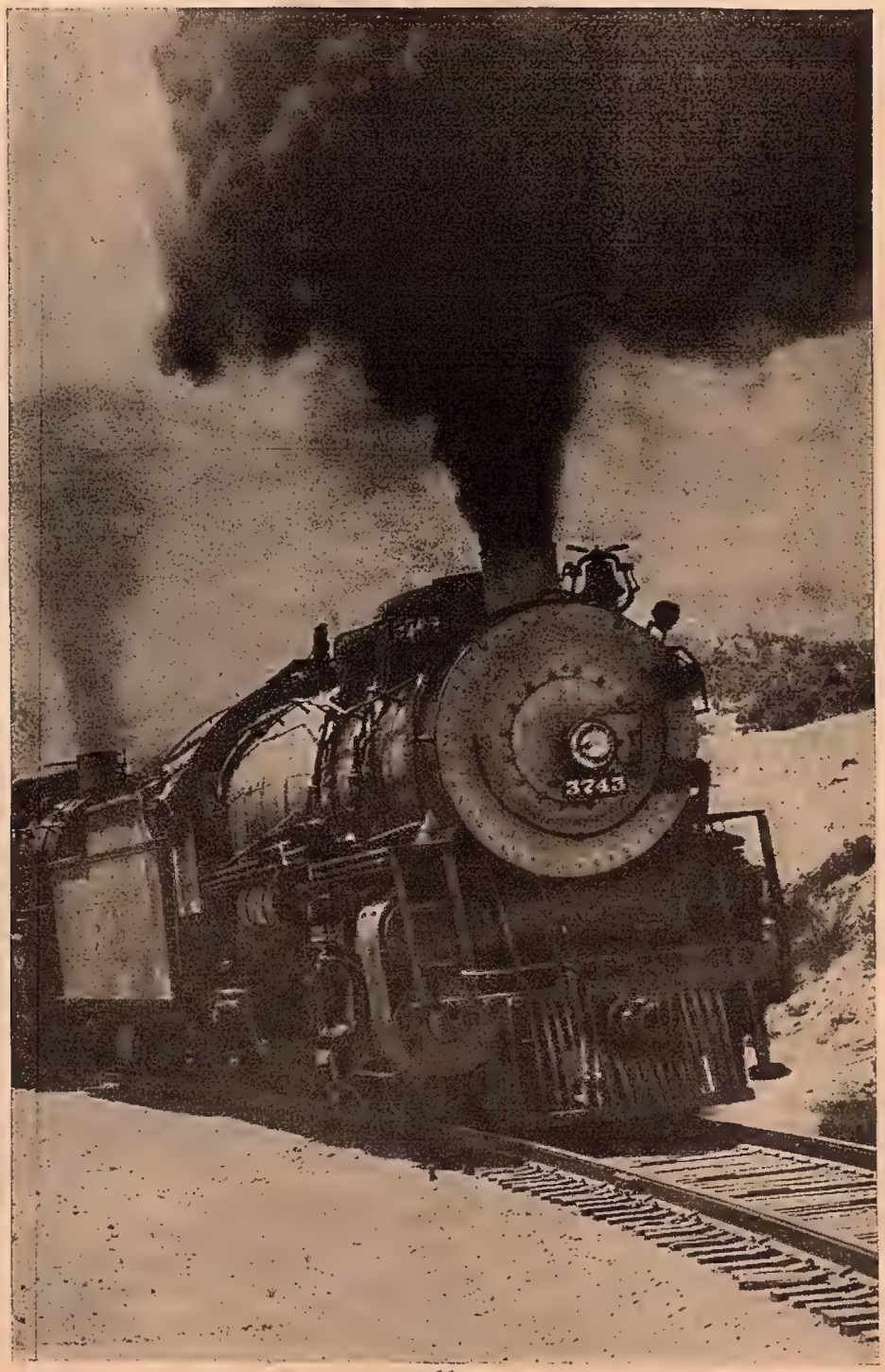
(Continued on page 12)

By DONALD M. STEFFEE

Collection of the late Herbert Sullivan



Santa Fe *Chief's* schedule has been cut 18 hours in 23 years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(Continued from page 10)

Coast routes in Great Britain which focussed worldwide attention on what the iron horse could do when really in the mood. The news was accepted as a challenge by the railroads of the United States, particularly those of the East, which were pretty proud of their own prowess in the running of fast trains on daily schedule. West Shore officials called attention to a run made three years previously, over their 429-mile Weehawken-Buffalo route, for which an overall average of 54 miles an hour was claimed. The general superintendent of the New York Central promised that his road would beat the new English record every day on the New York to Buffalo run—at a fare of two dollars per mile! As early as January 1879, the *Official Guide* editorially compared the best English and American schedules of the day and stated, "It will thus be seen that our American railways are not far, if at all, behind the British roads in this matter of fast time."

That these claims were extravagant is apparent from a study of the earliest known survey of world trainspeed, *Express Trains,* compiled in 1888 by two English authorities, E. Foxwell and T. C. Farrar, and published the following year. Using a minimum of 40 miles an hour on runs of at least 40 miles in length as standard for a fast or express train in Great Britain and the United States (29 miles an hour for other countries), Foxwell and Farrar found in all America only 13,956 miles regularly scheduled at that speed while British tables yielded 62,904 miles—nearly five times the U. S. total.

Nevertheless the writers found much to admire in American railroading, particularly the luxury of such trains as the *New York-Chicago Limited* and *Florida Special* which had even bathtubs and barbershops! Although averaging but 29 miles an hour the *Overland Flyer* from Chicago to the Pacific Coast was held up as a shining example of "the energy of these wild western roads as contrasted with the slowness of continental Europe."

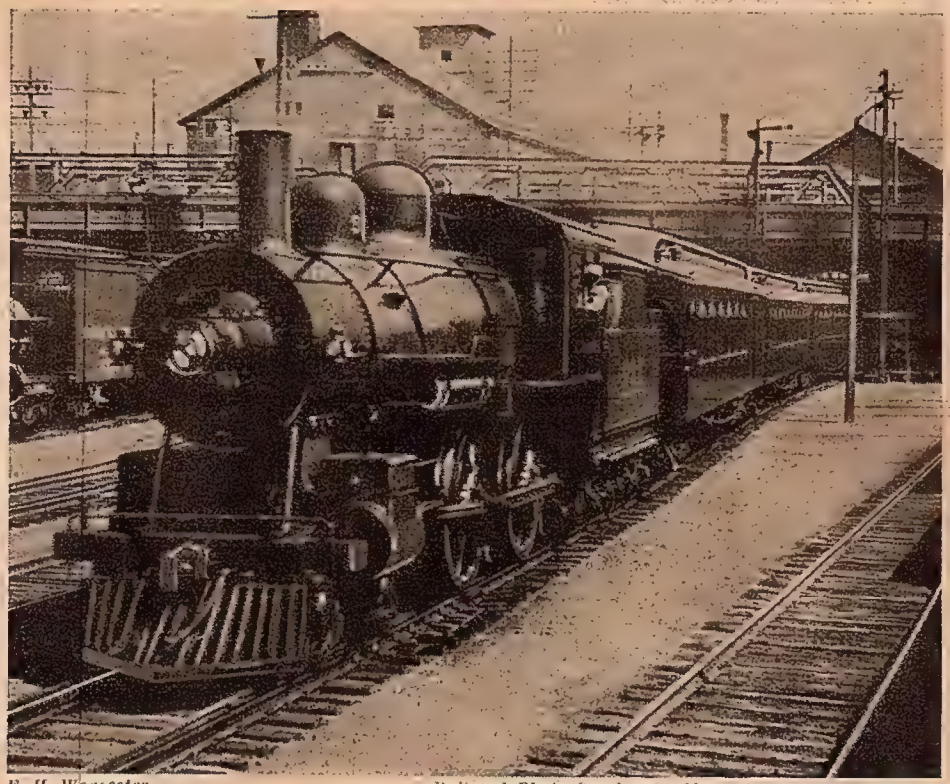
As might be expected, American 40-mile-an-hour running was concentrated on the highly competitive Jersey City-Philadelphia routes, the Pennsylvania Railroad claiming over 6000 miles, or 44 percent of the national total, while the Philadelphia & Reading boasted the fastest start-to-stop run of the time, from Bound Brook to West Trenton at 54.4 miles an hour. The Baltimore & Ohio had four trains doing the 40-mile Baltimore-Washington run in 45 minutes; 53.3 miles an hour. In New England, New York to Boston required six hours while the summertime *Mt. Desert Limited* averaged 41 miles an hour between Portland and Bangor, a schedule which wasn't beaten until 47 years later by the streamlined *Flying Yankee!* An even longer time was required to better the 3¼ hours between Columbia and Charleston of the historic South Carolina Railway. A competing train running over what is now the Atlantic Coast Line's route between these cities covered 40 miles from Sumter to Lanes in 56 minutes including two stops. Later this time was reduced to 51 minutes!

Both the New York Central and Pennsylvania then required 25 hours between New York and Chicago, while the Cincinnati-New Orleans run, a mediocre one today, was one of the nation's crack long distance services, the Queen & Crescent Route making it in 25 hours and 35 minutes (only 160 minutes more than at present!) while the Louisville & Nashville, with a route 83 miles longer, made a creditable 28 hours and 10 minutes. Milwaukee was then two and a half hours distant from Chicago, St. Paul fourteen hours, and St. Louis over ten hours. The Chicago & Alton thought 14½ hours too fast for the Chicago-Kansas City run and slowed it to 16 hours in 1889.

Only the present Overland Route had a luxury train for the benefit of through travel, and in the winter of 1888-89 this was augmented by the once a week *Golden Gate Special* which brought San Francisco Bay within less than 76 hours of Lake Michigan! The ballast had barely settled on the transcontinental routes of the Canadian Pacific, the Northern Pa-

cific, the Santa Fe and the Sunset Route and their services to the Far West were strictly maid-of-all-work, the one train stopping most anyplace to permit a homesteader to stake his claim or a party of buffalo hunters to indulge in their favorite sport.

days of unlimited advertising budgets, and the colorful newspaper and public timetable ads of that era placed great strain on public credulity. Nearly every trunk line proclaimed its trains to be the "most luxurious," "handsomest," "fastest in the world," etc.! The departure times of



F. H. Worcester *Railroad Photo Service, 93 Massachusetts Ave., Boston 15*

Typical of parlor-car consists of the "Golden Age," Boston & Maine's *The Dude*, Engine 990, cracks out of East Somerville for North Station, Boston

THUS dawned the Golden Age, first of five well-defined eras into which modern passenger service on American railroads can be divided. The old pioneering spirit was still strong as through routes to the Pacific were still being pushed across the Rockies and competing roads fought fiercely to enter strategic gateway cities and develop through joint routes for both freight and passenger traffic. No effort was spared to settle sparsely populated areas and foster industries along the line, with the ultimate purpose, of course, of increasing revenues. The gay nineties were

important trains were published in the daily papers much as shipping news is today.

As the Diesel locomotive and lightweight rolling stock have been largely responsible for the great speedup of recent years, so an earlier advance in passenger-car construction was to provide impetus for the greatest nationwide acceleration of schedules in railroad history, that of the final decade of the nineteenth century. This innovation was the enclosed or vestibuled platform. Not only did it make for safety in passing from car to car while the

A. L. Bostwick, 5475 Cavanne Ave., St. Louis, Mo.

"Vestibuled train" meant luxury and speed in 1901, when the Lackawanna's 901 whisked the ***Millionaire's Special*** between Hoboken and Morris Plains at better than 40 per. Actually, only a narrow central corridor was protected from the weather

train was in motion and reduce wind resistance, but it contributed greatly to travel comfort by obviating much of the swaying at high speed.

On August 16, 1888, the Baltimore & Ohio conducted a test run with a train of all-vestibuled stock, from Baltimore to Keyser, W. Va., a road with many curves and heavy grades. Though the 215 miles were covered in five hours at top speeds which must have been greatly in excess of 60 miles an hour, oscillation at the tops of the cars was never more than six inches —remarkably smooth riding in those days. The train was placed in immediate service between Philadelphia and Chicago. A second train soon went on the same run and all other mainline rolling stock was vestibuled as soon as it could be passed through the shops.

"Vestibuled" was used in train nomenclature as "streamliner" appeared some forty years later. Predecessors of the *Capitol Limited,* the *Midlander,* the *Northwestern Limited* and other crack trains of today were *Vestibuled Limited.* The Rock Island called attention to the use of this equipment by calling its principal Chicago to Twin Cities train the *Solid Express.* Although the Erie's best New York-Chicago train retained the name as late as 1918, the term eventually was dropped from timetables and advertising as the use of vestibuled cars became commonplace.

As a direct result of the English race to Edinburgh, the *Empire State Express* began its glorious career in the fall of 1891, marking the first major speed advance of the Golden Age. This train claimed world long distance honors for many years. The Columbian Exposition of 1893 in Chicago was responsible for the first 20-hour service from New York, with the *Exposition Flyer* which was, however, withdrawn at the close of the fair in the quaint belief that year-round fast time was not desired by the traveling public. Another famous train of that year was the original *Nancy Hanks* which cut some three hours off the Atlanta-Savannah time over the Central of Georgia Railway and earned for that road the title, "Fastest Railroad in the South." The 191 miles between Macon and Savannah were covered in four hours flat, stops included. Even British rail circles took notice of this schedule, which rivaled the best London-Liverpool and London-York runs of the day. But after only a few months of service the *Nancy* was pulled off, the speed demanded being greater than roadbed or rolling stock could stand!

The following year was to see the participation of the Baltimore & Ohio in through New York to New Orleans service, as the "Shennandoah Route" (formerly the Pennsylvania to Harrisburg, thence the Cumberland Valley to Hagarstown) was changed to the Baltimore & Ohio through Washington and Shennandoah Junction, and then back to the former route over the Norfolk & Western Railway and Queen & Crescent line. This arrangement lasted about five years when it was again shifted to the Pennsylvania and Southern Railway, as at present, and the Baltimore & Ohio disappeared from the Dixie scene.

The present *Crescent* began its career in 1892 as the *Washington & Southwestern Limited* on an 18-hour schedule between Washington and Atlanta. This was followed up with a crack winter season run from Washington, using the Southern to Columbia, the present Seaboard Air Line to Jacksonville, and the Flagler System to St. Augustine. Later this train, the Southern's *Palm Limited* was rerouted through Charleston and the Atlantic Coast Line to Jacksonville. The Illinois Central which, in 1888, required 35 hours between Chicago and New Orleans, had clipped nearly ten hours off this time by the turn of the century, saving a business day between the Great Lakes and the Gulf of Mexico and rivaling New York-Chicago in the long distance field.

AFTER THIS we find a full hour cut from the time between Boston and New York, and the famous *Royal Blue* fleet of trains established between Jersey

City and Washington by the Baltimore & Ohio and its connections, and both competitors making the run from New York in five hours, including the ferry time across the Hudson River.

While American annals show nothing like the 1888 race to Edinburgh and the race to Aberdeen, seven years later when the overnight trains from London would break a record on nearly every run, there were, nevertheless, many thrilling runs made by American trains with the sole purpose of beating the other road for an important mail contract. The nightly races

W. H. Thrall, Jr., 3703 Legation St. N.W., Washington, D. C.

Originally a once-a-week, winter-season flyer, *Sunset Limited* epitomised the best in Southern Pacific service for 48 years. Dieselized since this photo was made, she's headed for a 42-hour schedule in 1950

of the Burlington and the Northwestern with the Omaha and Denver mails; the race to Florida between the Plant System and the Seaboard Air Line to make the Cuba mail steamer; the runs of *Old 97* with the New Orleans letters, and the stampedes to Texas from St. Louis by the Missouri Pacific and the Cotton Belt provide much colorful rail and postal history. These exciting years gave rise to many so-called world records for which speeds of 120 miles an hour and more are claimed. Unfortunately actual data supporting such claims is so scanty and inconclusive that a practical or scientific mind cannot for a moment accept them as official and they belong in legend along with J. B. King and Jawn Henry.

It was inevitable that this competitive enthusiasm should spread from crack trains to ordinary passenger runs. The Chicago & North Western touched off a rivalry on New Year's Day, 1899, when it established ten hours flat from Chicago to St. Paul with the train which is, appropriately enough, the present *Victory*. The Milwaukee Road, then as now, a strong competitor for this traffic, was caught flatfooted and did not reciprocate until the following year when it began carrying passengers on *No. 57*, which is still one of the crack mail trains of America. Just two weeks later the Rock Island started things on the Omaha run when it clipped two hours off its overnight schedule to bring the time down to an unprecedented 12 hours and 5 minutes. The Chicago & North Western beat this by ten minutes by quickening the westbound *Overland Limited*. Oddly enough, the

Central of Georgia

Original *Nancy Hanks* was a locomotive, not a train, delivered to Central Rail Road & Banking Co. of Ga. by Baldwin in 1892. Numbered 1592, she made her first run with the "dinner train" from Savannah to Guyton; scored one mile in 39 seconds

Burlington, such a strong rival in both these services today didn't become excited over either race in 1899. While its crack Denver mail train undoubtedly matched or beat the time of the other lines to Omaha it did not deign to carry passengers. This was, perhaps, a shrewd decision, since in a matter of weeks the two rival roads abandoned the 12-hour passenger schedule. With respect to the Twin Cities, the Burlington did not then handle through trains to the Pacific Northwest, and because of its much greater mileage and sparsely populated intermediate territory, it was in no position to enter any time-slashing competition.

About this time, too, the two Canadian rivals for the Montreal-Ottawa business engaged in spirited racing between these cities which saw the time cut from 3½ hours to 2 hours and 20 minutes. The Grand Trunk Railway followed this up with an acceleration of the recently established *International Limited* to a time of 7¼ hours westbound and 7½ hours eastbound in 1901!

Except for the shortlived *Golden Gate Special* the run to the Pacific Coast from Chicago took about 90 hours in the late 1880s. As the century closed a full day was saved as the *California Limited*, then a winter season train operating four times weekly, made the run in 66 hours in 1902. Another popular present-day train to the coast, the *Sunset Limited* was just starting out as a winter season, once-a-week train between New Orleans and Los Angeles. Forgotten today is another transcontinental route of 50 years ago running from St. Louis on the Frisco Lines through Wichita to Burrton, Kans., where the Sante Fe mainline was joined, and over which daily coach and sleeping-car service was operated. Burrton is now only a Sante Fe whistle stop and receives mixed train daily service from the Frisco.

The excitement was far from being over with the advent of the 20th century. The Wabash was making an enviable speed reputation in the Middle West with a Detroit-St. Louis service faster than that of today, and had established a Kansas City-Detroit service averaging nearly 42 miles an hour for over 700 miles! Under the stimulus of the Pan American Exposition at Buffalo in 1901, the Wabash established a 13½-hour Chicago-Buffalo run which was never again matched.

THE YEAR 1902 is best remembered for the birth of the *20th Century Limited* and *Pennsylvania Special* (now the *Broadway Limited)* on a year-round

B. F. Cutter *Railroad Photographic Club*

This train is history. Chrome yellow tubes of transportation luxury may bear proud city names but they can never match the magic designation: ***Overland Limited.*** Pedestal-tendered 841 clumps her eastbound consist through Buford, Wyoming

20-hour New York-Chicago schedule, calling for a 48-mile-an-hour average by the former. The entire railroad world took notice; British authorities in particular were skeptical of sustained high speed on such a long run, and speculated on how long the new trains would last. In the case of the Pennsylvania, their gloomy forebodings proved well founded as the *Pennsylvania Special* was withdrawn after being in service less than a year. The reason, however, was not inability to make the time but the tremendous volume of heavy tonnage freight the road was then handling, and which was playing hob not only with fast passenger service but with the hotshot freight runs as well. Until the quadruple tracking of this busy route through the Alleghenies was completed and the present low grade freight lines built, drastic curtailments were necessary in through passenger service, and it wasn't until the spring of 1905 that the Pennsylvania could again go all out for the New York-Chicago passenger business with restoration of the *Pennsylvania Special,* this time on an 18-hour schedule which was promptly met by the New York Central.

In the South, too, schedules were still being speeded up. The time between Cincinnati and New Orleans over the Queen & Crescent Route had been brought down to 23 hours, practically that of today! Beginning in 1903 and over a period of about three years *Old 97* carried passengers from Atlanta to New Orleans via Montgomery in 11 hours and 55 minutes, 35 minutes faster than the present *Crescent,* Diesel power and all! In 1906 the Mobile & Ohio joined with the Chicago & Alton in a 24-hour once-a-week service between Chicago and Mobile. This train, the *Havana Limited,* was operated in connection with the Mobile-Havana steamships and brought Cuba within two days of the Great Lakes. From St. Louis to Mobile the schedule was but an hour longer than that of the present *Rebel.*

The great deeds of the Golden Age were not confined to hotshot mainline runs or races for mail contracts. A striking feature of eastern roads' timetables was the high quality of service given to summer resorts, which today are too often treated like unwanted stepchildren. Saratoga Springs, mecca of sportsmen and wealthy convalescents, was then at the height of its popularity. For many years the Boston & Maine operated a summer season all-parlor car train between Boston and Saratoga Springs which in 1892 was timed in 5½ hours. From New York, the old *Saratoga Limited* matched the time of the *Empire State Express* on the New York Central part of the run. Over the West Shore came through parlor cars from Long Branch, N. J., Philadelphia and Washington. A fine train between Portland, Me. and Niagara Falls via Rouses Point and Massena, N.Y. served famous resorts in the White Mountains, the Green Mountains and the Adirondacks. It included a through sleeping car to and from Chicago and was handled in connection with the Wabash.

The much abused Long Island Rail Road held its head high in the early 1900s, its *Shelter Island Express* averaging 50 miles an hour from Long Island City to Greenport, 96 miles, one of the really fast runs of the country.

In the summer of 1897 the Philadelphia & Reading established the first mile-a-minute schedule in the Western Hemisphere when a 55-minute timing was allowed for the 55½-mile dash from Camden to Atlantic City. This was cut to 52 minutes and then to 50 minutes, which established this train beyond all doubt as the fastest in the world. It retained this distinction for many years. The schedule was regularly beaten in daily operation, the run frequently being made in 45 minutes, and on one memorable occasion a time of 42 minutes, 33 seconds was recorded. For a few months in 1903-4 the scheduled time was cut to 49 minutes. Nor was the rival Pennsylvania route idle. Despite some three miles handicap in distance, it entered wholeheartedly into the competition, bringing its best time down to 52 minutes. Both roads advertised, "60 minutes to the seashore" which of course

included the Philadelphia-Camden ferry crossing. Sixty-mile-an-hour schedules were established on the longer Camden-Cape May run which far surpass the drab runs of 1949.

Today it is only in New England that summer season service is maintained in the old tradition with such fast, modern trains as the *North Wind,* the *East Wind,* the White Mountains expresses and the *Neptune* serving White Mountains and Cape Cod resorts. Only the *Laurentian* and a handful of locals serve once-proud Saratoga Springs while the fine service to the Adirondacks has deteriorated into single cars on trains to other points and subject to irritating, time-consuming switch moves. The Camden-Atlantic City service long ago lost its world reputation, and while it took a new lease on life in the late 1930s when colorful name trains like the *Dolphin,* the *Barnacle Bill Special* and the *Honeymooner* restored former glory, it has now fallen to a new low in public esteem. Although at this late date air-conditioned coaches have been placed on this run, in other respects there seems no inclination to restore it to its once high level.

In the Middle West and beyond Chicago, summer resort business in the old days was negligible compared to that along the eastern seaboard. Mackinaw City and other north Michigan resorts have long been served by the *Resort Special* from Chicago, and the *Northern Arrow* from Chicago, St. Louis and Cincinnati. In 1947 New York Central inaugurated the weekend *Timberline* on a 6½-hour Detroit-Mackinaw City schedule. The patronage accorded this train warranted its restoration in 1948 and again this past summer. The growth of the northwoods and lake regions of Wisconsin and Minnesota is reflected in such modern trains as the *Northwoods Hiawatha,* the *Chippewa,* the *Minnesota 400* and the *Indianhead.* Tourist travel to the national parks of the West owes its development to such old-time favorites as the *Denver Limited,* the *Denver Special,* the *Columbine* and *National Parks Special.* The first two trains had operated for over forty seasons before they were replaced by the year round *Denver Zephyr* and *City of Denver.*

OUR Golden Age was also the heyday of the shortline, not alone from the viewpoint of Archie Roberts, Lucius Beebe and other able historians, but also from their participation in through passenger service as well. The St. Johnsbury & Lake Champlain helped operate the Portland-Niagara Falls train previously mentioned. In 1894 the tiny New York, Susquehanna & Western Railway flexed its muscles and joined with the new Wilkes-Barre & Eastern in establishing a through Jersey City-Wilkes Barre service on competitive schedule with the Lehigh Valley and Central of New Jersey routes! The Lehigh & New England Railroad, whose sole passenger revenue today comes from an occasional railfan trip, once had a share in a competitive Boston to Washington overnight service. Established in 1890, this train ran from Boston to Northampton over the Boston & Maine, thence to Hartford and the Poughkeepsie Bridge route to Campbell Hall, then via the Lehigh & New England to Bethlehem where the Philadelphia & Reading took over for the run to Wayne Junction, the final lap being made over the Baltimore & Ohio. This train was a worthy rival of the *Federal Express* which operated via Willimantic, thence the New Haven route to Harlem River where the famous steamer Maryland took it for the voyage around Manhattan to Jersey City and the Pennsylvania Railroad. When the *Federal* shifted to the Shore Line the rival train took over the Willimantic route east of Hartford. It also changed over to the Lehigh & Hudson River, another road which is freight and railfans only today, for the middle portion of its run. Speaking of the *Federal Express,* who can recall that during 1889 and early 1890 it crossed the Hudson at Newburgh and came down to Jersey City over the Erie?

The Toledo, Peoria & Western was once an aggressive passenger road, operating through service between Chicago and

Peoria in connection with both the Chicago & Alton and the Wabash. It may surprise many to learn that the Santa Fe was once a competitor in the hot Chicago-St. Louis pool! Joining up at Pekin, Ill., with the present Chicago & Illinois Midland to Springfield and the defunct Chicago, Springfield & St. Louis Ry., a 337-mile through route was established with a double daily service headed by the *Red Express* (presumably from the color of its rolling stock). The extreme circuity of this route, together with the financial weakness of the two smaller roads, precluded any successful competition. After the demise of the Chicago service, the two lesser roads tried bravely to maintain a through St. Louis-Peoria service for many years. This gave way before the rival Chicago & Alton, and later the Illinois Terminal Lines with their much shorter routes. While the Chicago, Springfield & St. Louis is but a grass-grown memory today, the Chicago & Illinois Midland still is going strong with double daily Springfield to Pekin local service.

The Golden Age closed with the Panic of 1907. Not only did national economic conditions militate against further expansion and speeding up of passenger schedules, but a bad wreck or two also helped turn the tide. The traveling public which had applauded the dazzling exploits of the past decade suddenly pointed accusing fingers at the railroads. It was claimed in the press that speed competition endangered human life; that track and rolling stock wasn't equal to the exacting schedule demands, particularly when trains were running late; that the tight schedules placed too great a mental and nervous strain on engine crews, and so on.

Thus began the period of reaction and recovery. Management was quick to heed the clamor and running times were lengthened everywhere. Although the New York-New Orleans time hadn't been particularly fast, a full three hours were added. *Old 97* no longer carried passengers, nor did the Milwaukee Road's *No. 57*. Winter tourists to Florida were given an extra hour or two to loll in their drawing rooms. The Chicago - Denver run which in 1902 had been a smart 25 hours and 50 minutes was to become a melancholy 32 hours five years later. Even the bellwether of all long distance service, the New York-Chicago run was affected when, in December 1907, the *Century* was slowed to 19½ hours. The Pennsylvania stood its ground, however, declaring its ability to make 16 hours if need be. Rather than risk the loss of the big business travel to which time was money, the New York Central gave in and soon restored the 18-hour run.

It was necessary to go to Canada to find much to cheer about in 1907. A surprise move by the Canadian Pacific in August of that year established the *Trans-Canada Limited* between Montreal and Vancouver on a schedule of 93 hours westbound and 91 hours and 5 minutes eastbound, a most remarkable feat for those days. Withdrawn at the end of the month, this train did not re-enter service until the summer of 1919. Thereafter, however, it was operated every season, until 1930. Another splendid train introduced at this time was the *Soo-Spokane Flyer* placed in service between St. Paul and Portland, operating via the Soo Line through Portal, N. D., thence Canadian Pacific through Moose Jaw and Lethbridge to Kingsgate and the Spokane International Railway to Spokane, and then over the Oregon Railroad & Navigation Company. The 1907 schedule of 59½ hours over this 1912-mile route was apparently ahead of its time since it was slowed considerably in following years. This train lasted until 1914. While passenger service is still available over this entire route, connections are not too good and railfans are probably the only ones using it today.

BY THE FALL of 1909, public fear of fast trains had subsided, and with all steel rolling stock coming into general use along with improved roadbed and signalling systems, a rapid recovery was made and faster schedules than ever were established on many runs. Prominent among these were the first 24-hour sched-

ules between New York and St. Louis and an unprecedented 5¼-hour service between Buffalo and Pittsburgh over the New York Central-Pittsburgh & Lake Erie route. Over the Philadelphia & Reading route between Jersey City and Philadelphia the famous "Your watch is your timetable" fleet of hourly speedsters came into being, some of these trains making the run in 98 minutes!

During 1910 the *Hustler* was placed in service between Kansas City and Houston via the Frisco Lines north of Denison and the present Southern Pacific route south thereof. The running time was a very good 25½ hours. Through cars were also operated to and from Chicago via the Chicago, Alton & St. Louis. The time between Houston and Chicago was just over 33 hours. This service, pulled off the following year, deserved a better fate.

Time to the Pacific Coast, which had lengthened gradually during the previous decade, was again sharply cut with the introduction of the once-a-week *Santa Fe Deluxe* on a 63-hour schedule which saved a full business day. Threatened with loss of prestige, the *Overland Limited* met this time on a daily basis over its historic route. In California the Santa Fe bid for the Los Angeles-San Francisco business with overnight trains, the *Saint* and the *Angel*, on 16-hour schedules. Considering that the Santa Fe route was over 600 miles long and encountered mountain grades continuously south of Mojave, these were exceptionally fast trains.

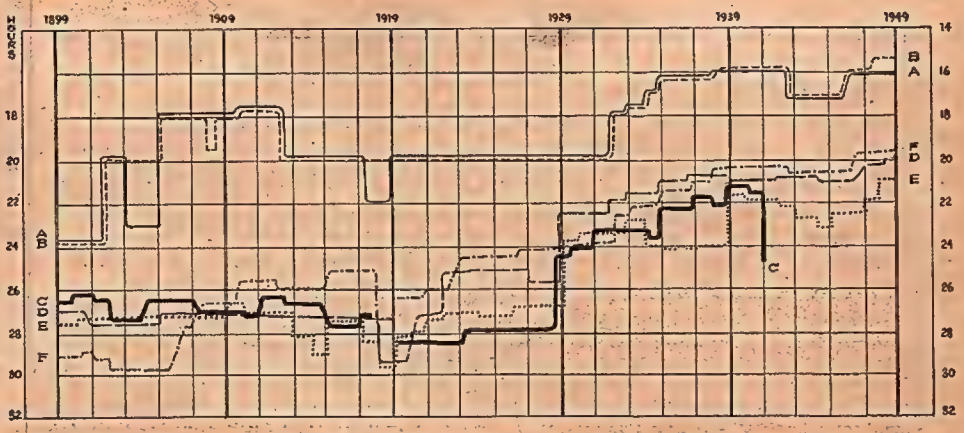
Trade with the Orient had grown by leaps and bounds, and the feud between the Hill empire and the Canadian Pacific had increased in intensity with the result that the interested carriers went all out in passenger as well as freight service. In 1910 the Northern Pacific operated no fewer than four transcontinental trains in each direction. The cities of Spokane and Seattle were served out of all proportion to their population, the state of Washington being crossed by no less than seven daily Northern Pacific trains, and four more on the Great Northern—in each direction! Later as the Milwaukee Road completed its line to Puget Sound and began cutting in on the lucrative traffic, the older lines reduced their services.

It is difficult to assign reasons for the relapse which set in by the end of 1912. The next fifteen years or so were a time of gentlemen's agreements, even of smug complacency. Railroad construction had virtually ceased, maps of the trunk lines looking much as they do today. Fast freight lines had been established from coast to coast; strategic gateways had been fought for and won or else shared through trackage-right agreements; through sleeping car lines were operated on both sides of the insurmountable Chicago-St. Louis-New Orleans axis. Of outside competition there was none, the flaming spirit of competition which had captured the imagination of the world flickered and died from sheer want of fuel.

The big brass of former bitter rivals gathered at luncheon tables and decreed that the time between "Bigtown" and "Commercial City" should be 10 hours—no less. Two trains were to run north of "Middle City" and three south thereof. Purse strings were tightened on advertising budgets. Why advertise when your service was neither better nor worse than that of your competitors? The thumbnail timetables disappeared from the newspapers, and the larger quarter-page spreads became about as imaginative as a telephone directory.

Even the individualities, if you will, of great systems were submerged under the wave of standardization that was sweeping the country. The interior of an Alton parlor car looked exactly like one on the New Haven. Drab Pullman green became the universal color of passenger cars. *Ghost Train, Royal Blue Line, Wabash Blue*, etc., became just fond memories. Only a few rugged individualists like the Pennsylvania and the Canadian Pacific were bold enough to resist the trend.

New York and Chicago again became twenty hours apart while St. Louis was wafted an hour further away via the Pennsylvania, and two hours further via



New York-Chicago. A (PRR: Fort Wayne Route, 902.6); B (NYC: Lake Shore Route, 958.2); C (LV-CNR: 982.4); D (DL&W-NKP: 920.4); E (Erie: 997.9); F (B&O: 990.5)

New York-Chicago traffic is usually considered in terms of New York Central or Pennsylvania. It is unfortunate that other routes which once played an important part in improving service have either lagged or withdrawn from this lucrative competition

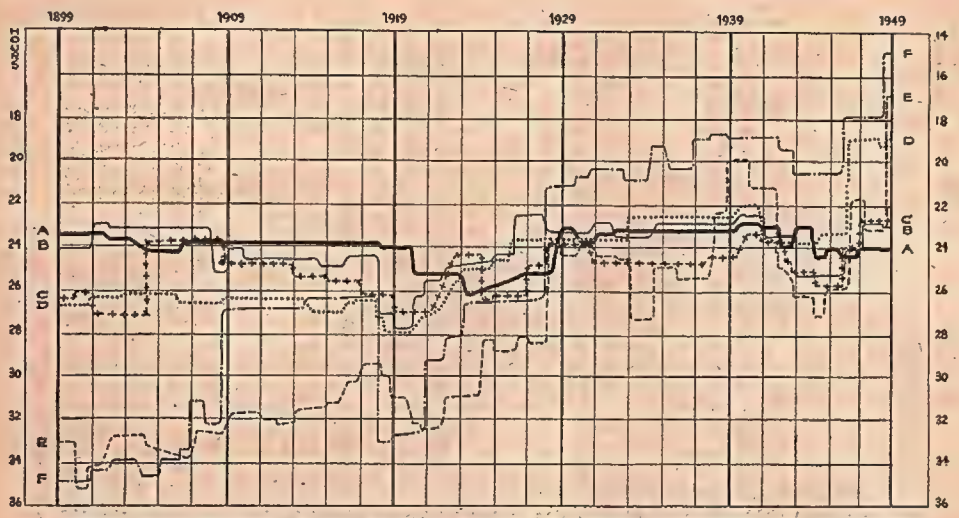
the New York Central route. Luxurious transcontinental limiteds, making division point stops only, ambled across the prairies with the stately dignity of a dowager empress, while lesser trains, making innumerable local stops and doing all the headend work, would make identical time!

Once set the pattern must not be disturbed. A bright young passenger agent full of ideas for improving service and increasing revenues would be put in his place with a terse, "No. 17 is an old, established train, therefore its schedule must not be changed." An enterprising small road, seeking to attract more business to a summer resort on its line by means of a through sleeping car line or at least improved connections with a bigger system would be brushed off with, "It is not our policy to change the schedules of our through trains."

SUCH UNPROGRESSIVE thinking continued throughout the early 1920s. After World War I imposed necessary drastic curtailments of service, the goal of management was not, apparently, to better the brilliant runs of twenty years earlier but merely to restore the schedules of 1912 to 1916. Even in 1925, 68 hours remained the best time to the Pacific Coast (except on the Santa Fe's *Fast Mail* which had no sleeping cars or dining service) two hours slower than a quarter of a century earlier! New York to Washington remained at five hours. Give or take a few minutes, the Twin Cities run still took nearly 13 hours from Chicago, and eight hours was spent on a train to St. Louis. No one in his right mind would suggest that 18 hours could easily be made on the New York-Chicago run.

Barren as these years were in contrast to what had gone before, nevertheless they saw the establishment of many notable trains. Just before America entered the first World War, the all-Pullman *Panama Limited* gave the Chicago-New Orleans run a prestige and service it had never known. The competing *Sunshine Special* of the Missouri Pacific and the *Texas Special* of the Katy between St. Louis and San Antonio gave Texas two topnotch trains. The latter, covering 1037 miles in 26 hours, was by far the fastest train in the Southwest. Soon the Katy and the Frisco created the present joint route through Vinita, Okla., cutting some 80 miles from the distance, although the time was not cut.

The *Dixie Flyer* from Chicago and the *Quickstep* from St. Louis had long been popular favorites between the Middle West and Florida. After the war these



A (B&M-MeC-PR-CNR: Boston-Halifax, 732.1); B (SOU *CNO&TP*: Cincinnati-New Orleans, 834.1); C (CNR: Montreal-Halifax, 839.9); D (L&N: Cincinnati-New Orleans, 917.1); E (K: Kansas City-Port Arthur, 790); F (SP: Portland-San Francisco *Oakland Pier*, 714.1)

Virtually stationary for half a century, schedules from Halifax, N. S. to Montreal and Boston are likely to remain that way. Of Cincinnati-New Orleans runs L&N, despite 83-mile handicap, has forged far ahead of Southern. Compare these with amazing progress of KCS on Port Arthur run, and SP's Portland-San Francisco run which has no large intermediate cities to speak of

services were to be expanded until they rivalled those from New York and the East. The *Dixie Limited* appeared as a companion train to the *Flyer,* while the Illinois Central route augmented the *Seminole Limited* with the winter season *Floridian,* which outran the *Panama Limited* between Chicago and Fulton, Ky.

About this time bus lines had grown from single-vehicle, back-roads affairs to through interstate routes over the smooth highways that gridironed the land. Air travel had advanced from ten-minute sightseeing flights to important passenger routes over which a saving of a half to two-thirds of train time could be made. How would the railroads meet this threat to their monopoly in interstate travel?

Before attempting to answer we must again go back to Foxwell and Farrar and trace a passenger service practice which was to cost the railroads dearly in good will forty years later as the public turned to other forms of transportation. In the chapter on French rail services in *Express Trains* is found the statement, "The ideal of French Railways is higher receipts per train mile and a very low rate of working expenditure." In 1888 a long distance train in Europe carrying third-class passengers was rare. The theory was that, aside from higher initial cost of more luxurious furnishings and the wages of a porter or two, it cost no more to run a luxury train than one composed of third-class carriages. A wealthy clientele, paying double or triple fare would return a far greater dividend than a larger number of low-fare passengers. Third-class folk couldn't afford long distance travel, so why worry about them?

British railways on the other hand gloried in their more democratic policy of admitting third-class passengers to all the important trains from the *Flying Scotsman* on down. American policy was then more closely allied to the British. Apart from the New York-Chicago leaders, the *Congressional Limited,* the *Florida Special* and a handful of summer resort trains, every fast train carried coaches. Soon, however, managerial policy was to veer to the French viewpoint. This was particularly true in the eastern states,

the roads of which carried the bulk of the big business and luxury travel of those times. Despite the popularity of the *Empire State Express,* made up largely of coaches, the Lehigh Valley, in 1896, brought out the competing *Black Diamond Express* as an all-parlor-car train. Doubtless influenced by the success of the 20-hour New York-Chicago trains, the New York Central and Pennsylvania in particular became more devoted than ever to the caste system and soon their public timetables bristled with "Pullman cars only" or "No coaches," so that a bewildered white collar worker, wishing to take his family on an inexpensive vacation, might be excused for wondering if he could get a through train of any kind to his destination.

Griffith Photos

Famous British flyer, *The Royal Scot,* stretches her legs on an American race course (CB&Q, out of Aurora, Ill.), following her visit to the Chicago World's Fair of 1933-34

Even as late as 1906, daytime coach passengers between New York and Pittsburgh had to take the *Fast Line* which had been the crack Chicago train of the early 1870s but now had become a glorified local, taking about the same time to reach Pittsburgh that had prevailed 35 years previously. The situation was remedied by the establishment of the *Pittsburgh Day Express* and the *New York Day Express,* with both parlor cars and coaches making the run in nine hours, New York-Jersey City ferry time included! These trains were leading contenders for worldwide long distance laurels, and their immediate success led to the placing in service of the *Quaker City Express* on a midafternoon run from the Steel City to Philadelphia in 7 hours and 50 minutes. Considering the numerous stops at lesser towns like Latrobe, Cresson, Tyrone and Coatesville, this was one of the most remarkable schedules ever to show in Pennsylvania timetables.

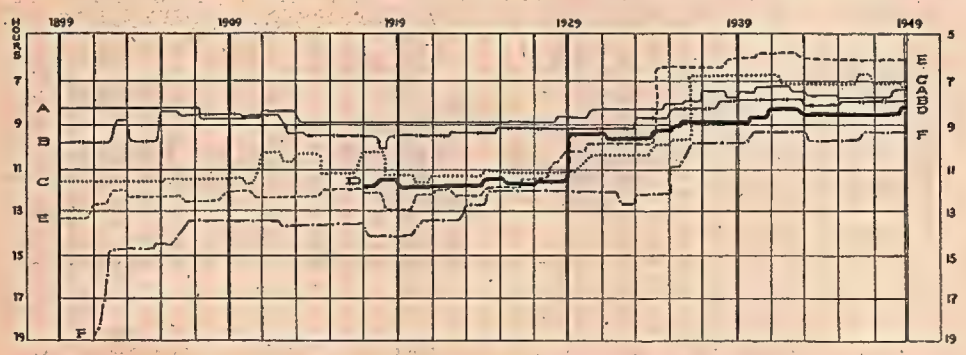
Unfortunately there was no one with the genius and foresight of the New York Central's George H. Daniels—godfather of the *Empire State* and the *Century*—in the Pennsylvania's passenger organization and officials took a dim view of the publicity value of these fine trains. Both

were drastically slowed in the late 1907 retrogressions, and the *Quaker City Express* became the *New Englander* a maid of all work. It now offers an outdated Pittsburgh-Boston overnight service. The *Pittsburgh Day Express* came off just prior to World War I, while its eastbound counterpart deteriorated and finally vanished in the mid-1930s, leaving this highly important daylight service without a leader like the *Hiawatha* or *Coast Daylight* of today. When runs of only a fraction of the traffic potential can support such successful and highly publicized trains as *Nancy Hanks II*, the *Powhatan Arrow* and the *Sunbeam*, the obsolescence of the day service between Gotham and the Steel City becomes more marked.

BECOMING ALARMED over the desertion to buses of the less affluent traveler, the eastern roads began admitting coach passengers to such exclusive trains as the *Pennsylvania Limited* and the *Wolverine*. When the Baltimore & Ohio introduced the new individual seat which could be turned to face the windows, passengers rubbed their eyes in disbelief. Other roads rushed to order this new type of daycoach and soon we had the *Day Coach Deluxe* on the New York Central's New York-Buffalo run which served important smaller cities on a good schedule. This was followed by the *Niagara Falls Deluxe* over the Michigan Central between Buffalo and Chicago. And under progressive new management the Central of New Jersey brought out the *Blue Comet* for the Atlantic City trade. These new trains actually carried observation cars, a concession to the lowly coach passenger which would have greatly shocked an old line rail executive.

The story of the *Challengers* and the success of the host of all-coach streamliners introduced in recent years needs no retelling. While there are, and will be for some time to come, crack overnight trains with sleeping cars only, the triumph of the humble coach passenger is complete when, on June 26th of this year, the last all-parlor car train in America, the New Haven's snooty *Merchants Limited* admitted him through its sacred portals.

Restoration of the prewar best time of 63 hours between Chicago and California on a daily basis over the three principal routes late in 1926 marked the first stirring from the lethargy of the previous fourteen years and ushered in a renaissance. Three years later the time was cut another five hours and the *Overland Limited* soon went this two hours better, bringing the time down to an unprecedented 56 hours! After much agitation by



A (NYC: New York-Buffalo 435.5); B (PRR: New York-Pittsburgh, 434.2); C (AT&SF: Chicago-Kansas City, 451.1); D (NYNH&H-PRR: Boston-Washington, 456.6); E (CB&Q: Chicago-St. Paul, 428.3); F (SP's Coast Route: Los Angeles-San Francisco, 470)

New York Central's best New York-Buffalo schedules show little improvement over the years. Arguments that dense traffic is a detriment to acceleration are refuted by steady progress of Boston-Washington

R. P. Morris, 214 Gelston Ave., Brooklyn, N. Y.

Day-coach passenger was king aboard the Jersey Central's *Blue Comet*, which gave him an individual seat and a 3-hour schedule between Jersey City and Atlantic City when it was inaugurated in February 1929. Later came air-conditioning and then—the air

Portland and Seattle newspapers, the northern transcontinentals caught the idea and a schedule of 63 hours westbound and 61¼ hours eastbound was placed in effect with the introduction of the *Empire Builder* and the speeding up of the *North Coast Limited* and *Olympian* in 1929. The last named train had, two years earlier, introduced another aid to smooth passenger travel, the roller bearing.

In the East the *Yankee Clipper* cut fifteen minutes off the New York-Boston run, while New York to Washington had come down to 4½ hours. St. Louis was again within 24 hours of the Atlantic seaboard while the leisurely Chicago-St. Louis schedules had become a brisk 6½ hours. To secure a greater share of the Cincinnati-New Orleans travel, the Louisville & Nashville introduced the *Pan American* on a 26-hour schedule, then shortened it to 24 hours.

Not only faster schedules but extra comfort and service refinements were the order of the day in this period. Again the Baltimore & Ohio was first, this time with air-conditioning after several roads had previously experimented with precooling of sleeping cars in terminal stations, the benefits of which unfortunately wore off during the night. Japanese maidens served afternoon tea on the *Alton Limited* between Chicago and St. Louis. The *Erie Limited* offered a club lounge car with radio facilities to coach passengers! Whatever it was that had come over the railroads, the public was quick to show appreciation and to patronize the new trains.

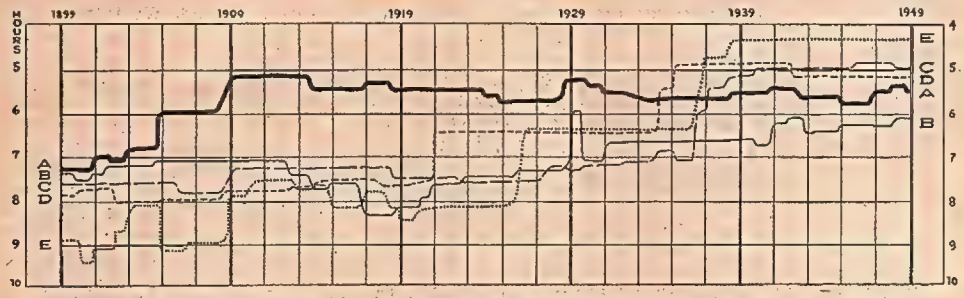
THE RENAISSANCE years accentuated the low estate of schedules throughout the previous period of complacency. With great fanfare the Wabash brought out the *Central States Limited* between Detroit and Kansas City on a 19-hour schedule. Did no one in headquarters recall that back in 1899 the run had been made in 17 hours and 20 minutes? The *Crescent Limited,* which marked a milestone in travel between New York and New Orleans, was only an hour or so faster than the old *Washington & Southwestern Limited* of the 1890s! Twenty-four hours New York to Florida (Jacksonville) was widely advertised in 1927. This represented about 75 minutes' improvement over 1899. Eight-

hour midday trains between Montreal and Toronto were widely acclaimed. But what about the 7¼ hours of 1901? In contrast to their enterprise of recent years, the Chicago-Twin Cities routes timidly quickened and then slowed again, first the night trains and then the day trains, and settled for 10½ hours in 1929. This was 30 minutes slower than 30 years before! The only difference was that the Burlington had come to the fore, replacing the Chicago Great Western and the Soo as competitor of the Northwestern and the Milwaukee roads.

Throughout this entire revival we have the strange spectacle of the epitome of American long distance travel, New York to Chicago, adhering strictly to the 20 hours of 1902 and 1912! Again on delving into history we find that in 1882 the differential fare plan was established under which the New York Central and Pennsylvania were considered standard routes, charging full basic fare while the other lines were granted a certain lower or differential fare to compensate them for inability to match the time of or to offer the frequency of service of the two big roads. In 1897 this was augmented by what might be called the dollar-an-hour plan. Twenty-eight hours was chosen as standard running time and an extra fare of one dollar was charged for every hour cut under that time. A "25-hour train" ($3 extra fare) meant anything from 24 hours and 50 minutes to 25 hours and 49 minutes. It could thus be 49 minutes late and the full extra fare would be collected. But let it be 50 minutes late and every through passenger was entitled to a dollar refund, since on that particular day it had been a "26-hour train."

This made for that exemplary punctuality that was to win worldwide admiration. The call for a "penalty train" was coveted by engine and train crews alike and it was a point of honor to bring it in on the advertised time.

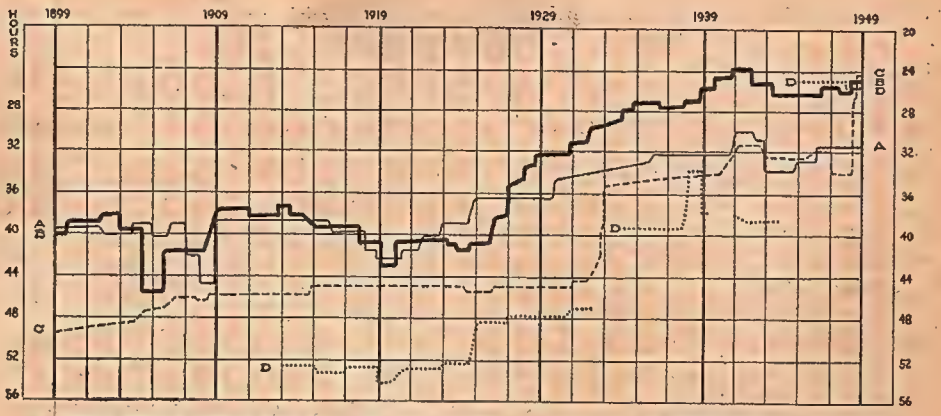
Later the 28-hour minimum was adopted for the New York-St. Louis run with proportional standard times to Detroit, Cincinnati, Cleveland and other key cities. The premise was that it cost more to operate on fast schedule and that the class of travel which demanded fast time should pay for it. Yet there were defects in the plan which led to rather amusing situations.



A (NYC: Buffalo-Pittsburgh, 256.2); B (B&O: Detroit-Cincinnati, 258); C (MoP: St. Louis-Kansas City, 278.7); D (GM&O *Alton*: Chicago-St. Louis, 281.7); E (SP: Dallas-Houston, 263.7)

Routes shown here have usually had the lion's share of passenger traffic in highly competitive territories. A, B and D would be expected to make the best showing over the years, instead of the reverse, as is the case. Contrast these services with Southern Pacific's Dallas-Houston run, serving smallest terminal cities and no intermediate town of importance. Even the local *Hustler*, with 12 regular and 14 conditional stops, takes only 5 hours 50 minutes.

For one thing, save on the *Century*, the *Broadway* and maybe one or two other top trains, there was no extra fare to either Buffalo or Pittsburgh. Also the charge was waived if a stopover was made. What was to prevent the wise traveler from buying a coach ticket to Buffalo on, say, the *Empire State Express*, spending a couple of hours sightseeing, then buying another ticket and using one of the over-



A (PRR-SOU-A&WP-L&N: New York-New Orleans, 1351.1); B (PRR-RF&P-ACL-FEC, 1330.3); C (AT&SF: Chicago-Houston, 1355.8); D (CRI&P-Ft.W&DC: Minneapolis-Houston, 1365.3)

Rapid growth of Florida winter resorts and competition of SAL has enabled New York-Miami run to outstrip more sedate New York-New Orleans service. Vigor of the West and Southwest is seen in progress of Santa Fe's Chicago-Houston run in recent years. Rock Island has built Minneapolis-Houston run into outstanding long-distance service

night trains on to Chicago. He would arrive the next morning after a 24-hour-or-so ride at no extra fare! In those days, sleeping car space was usually attainable right up to train time, and so all that was necessary was the extra effort of getting off one train and on the other.

For another thing, these time fares did not apply via Baltimore and Washington, a fact which actually gave the Baltimore & Ohio the whip hand in the eventual speeding up of the New York-Chicago time which it could never hope to match over its own line. In 1923 the old *Washington and Chicago Limited* was refurbished, rechristened *Capitol Limited* and placed on an unprecedented 19-hour schedule. The competitive Pennsylvania service had been operating through sleepers in connection with the *Broadway Limited* at Harrisburg. The new Baltimore & Ohio move could not be met without either drastically changing the *Broadway* schedule or establishing an independent Washington-Chicago train. The *Liberty Limited* began its career as the latter course was chosen. The Pennsylvania's dilemma grew as the Baltimore & Ohio ever forced the pace on the run from Washington, while a reactionary New York Central would not budge under 20 hours from New York. Finally we see the *Liberty* leaving Harrisburg some 20 minutes later than the *Broadway* then overtaking and passing her at Pittsburgh, to reach Chicago a full hour earlier! In the fall of 1931, if one risked a ten-minute connection, he could leave Chicago on the *Liberty Limited* for Pittsburgh, do some quick legwork in buying tickets and reservations and finish the trip to New York on the *Cincinnati Limited* in only 18 hours and 50 minutes—at no extra fare!

On the New York Central the situation became almost as funny. St. Louis to New York schedules had been speeded up so that the *Knickerbocker* was averaging three miles an hour faster than the *Century* while the *Southwestern Limited*, leaving Cleveland 20 minutes later than the *Century*, beat her into Grand Central by 35 minutes! Had not the time at Cleveland for the *Century* been shrewdly omitted from public timetables its passengers, too, might have had an extra fast ride at less fare! As the great depression forced curtailments and consolidations of trains we find the proud *Commodore Vanderbilt*, one of the fleet of new 20-hour trains which had been established in 1929, carrying coaches and stopping at

Amsterdam, Rome and Oneida in New York State, Kendallville, Ind., and Sandusky and Elyria, Ohio.

LONG AGO the lesser competitors realized that big business travel was not for them and that differential fare alone would not give them a fair share of the traffic. They concentrated on the latest in rolling stock and their 28-hour trains, carrying observation cars and well advertised, were greatly superior to those of the two big roads which usually carried the oldest equipment and were never mentioned in advertising. This redounded to the benefit of smaller cities along these lesser roads and gave them—for size—the finest rail service in the United States.

During the renaissance, these roads went after the extra-fare business, cutting time by hours with the *Western Special, Lackawanna-Nickel Plate Limited, Erie Limited* and the accelerated *Chicagoan.* They were amongst the first lines to extensively use the new individual seat coaches and club lounge cars. Considering that the best times over these routes had been cut to 24 hours, and even 23 hours, while retaining the differential fare, their competition was to be reckoned with. Even through bus lines were now advertising 27 hours from New York to Chicago!

As if the spur of the Baltimore & Ohio between Washington and Chicago wasn't enough along with the other pressure that was being brought to bear, the Canadian systems were soon to engage in a spirited Montreal-Toronto speed war which saw the time over the Canadian National route cut to six hours, giving it the world's long distance championship, while the Canadian Pacific was to boast the fastest start to stop run in history, 124 miles from Smith's Falls to Montreal West in 108 minutes! As a result, the Montreal-Chicago run was quickened over three hours to 18¼ hours and later to 17½ hours for 848 miles, only 54 miles less than that of the Pennsylvania from New York.

A New York-Chicago speedup was inevitable, and on April 24, 1932, the last bastion of complacent reaction fell. With much advertising of how the roadbed etc., had been improved and of the careful consideration given to the matter, the 18-hour schedule was restored. Old-line travelers snorted, "They did that back in 1905!" But even this did not mark complete surrender since a ten-dollar service charge was imposed on the *Century* and *Broadway* and to justify this extra fare, the other 20-hour trains were slowed a full hour, giving the former a 3-hour differential in time. However an aroused public now demanded fast time not only on one or two standard bearers but on every train. Soon these lesser trains were speeded up until they were less than an hour behind the leaders. During World War II the Pennsylvania abolished the extra fare altogether on the *Broadway.*

By 1929, the airplane had become a full-fledged competitor and had begun taking the cream of the passenger traffic. Adopting the old slogan, "If you can't lick 'em, join 'em," the Pennsylvania and Santa Fe got together with the new Transcontinental Air Transport system in furnishing 48-hour service coast-to-coast, using the train by night and flying by day. Another air-rail service brought the Twin Cities within 24 hours of New York: by air to Chicago, then using either the *Century* or *Broadway* to the East. However air and rail travel seem to be as oil and water, and these combinations were of short duration.

WITH THE great depression making itself felt throughout the land, rail ingenuity was to be tested as never before. The eastern roads, once so enterprising and resourceful, seemed completely bewildered by the upset national economy and the changing travel habits of the public. High fares were, to them, the cure for all passenger ills. In 1920, to offset a 20 percent wage boost, the basic coach fare was increased from 3 to 3.6 cents a mile and this exorbitant rate remained in effect throughout the depression years despite decreased costs of operation following World War I. For many years low-rate coach excursions had been op-

erated on weekends, first over short distances and then on overnight runs of increasing length until they took in such terminal points as New York and Cleveland and Boston to Washington. Although these excursions were invariable sellouts and must have returned some profit, the idea never got across that regular daily service at lower fares might restore much business and good will to the American railroad industry in general.

It remained for the Baltimore & Ohio's great president, Daniel Willard, to single-handedly force the other roads to agree to a two-cents-a-mile coach fare and this was immediately approved by the Interstate Commerce Commission. It is interesting to note that from 1935 to 1939 the passenger revenues of five eastern roads (Baltimore & Ohio, Erie, New York Central, New York, New Haven & Hartford and Pennsylvania) increased from a round figure of $150 million to $175 million despite the fact that in 1935 the 3.6 cent rate was still in effect.

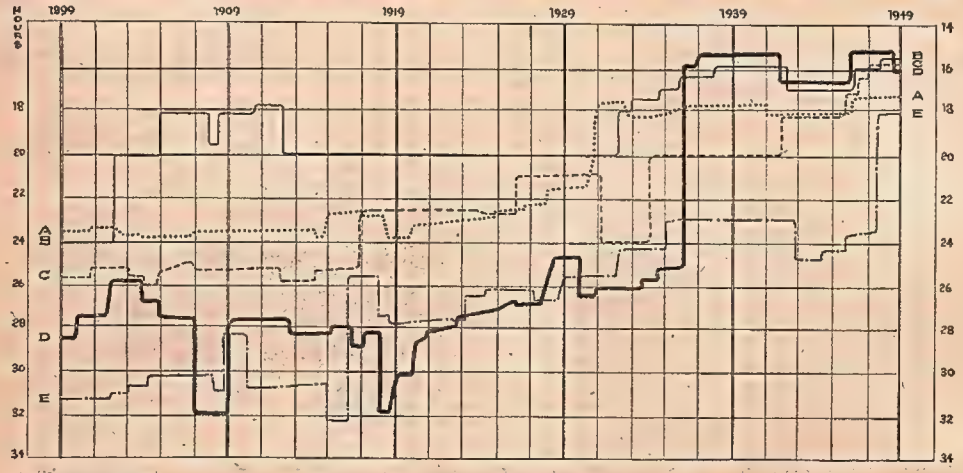
From then on the western roads showed the initiative and enterprise. How they met the crisis with the new-fangled Diesel locomotive and streamlined rolling stock; all-coach economy trains; meals as low as 35 cents and cars for women and children only is known to all. In the same five-year period, 1935 to 1939, inclusive, the aggregate passenger revenues of the Santa Fe, Burlington, Milwaukee, Rock Island, Southern Pacific and Union Pacific, all of which went in heavily for the new power and passenger equipment, rose from 61 to 83 million dollars. Of course these comparisons are subject to many factors beyond the scope of this article. Nevertheless the figures are significant in that in one case the public responded when fares were reduced to a level it could afford to pay, and in the other progressive thinking was rewarding.

Edward B. Pedlow, M.D., Lima, O.

Precursor of the *Broadway*. Head-ended by the 296, PRR's *Pennsylvania Special* speeds through the snow-covered outskirts of 1899 Philadelphia on the last leg of her 24-hour schedule

SO MUCH has been written of the age of streamlining and of the great speed-up of the last fifteen years in the *Annual Speed Surveys*, and in many other articles in this and other publications that it need not be dealt with here. In the tabulations on pages 34-47 are compared the best running times of a half century ago with those of 40 and 20 years ago

and of the present. The fifth column shows the fastest regular schedule for a given run and the year it was first established. Because of space limitations this study is limited to key runs in all sections of the country. But also included are enough competitive services to show the efforts of rival lines through the years; services which have come to the fore through inauguration of streamliners, or for other reasons; and finally, services that have deteriorated or vanished.



A (CNR: Montreal-Chicago, 849.6); B (NYC: New York-Chicago, 958.2); C (IC: Chicago-New Orleans, 920); D (CNW-UP: Chicago-Denver, 1048); E (MP: St. Louis-San Antonio, 923.6)

Forty years ago New York-Chicago was the bellwether of long-distance services. How this supremacy was lost is clearly shown in this graph. Brilliant streamliner schedules between Chicago and Denver leave the onetime leader far behind while vigorous speedups have enabled other runs to nearly match the much-heralded *20th Century Limited*

For the most part, runs between neighboring cities are omitted since they are but parts of longer runs and thus are affected proportionally whenever the longer run is changed. For this reason, few runs from Boston have been listed, and few from Philadelphia or Baltimore. The services to these cities are, for the most part, subordinate to those to New York or Washington and there would therefore be little point in showing them.

Yet it is in the East that the argument that vigorous speedups are impossible on routes of high-traffic density is refuted. The Boston-Washington run, serving five metropolitan areas of over one million population each in the course of 456.6 miles, comprises the two busiest through routes in the world. The bridge- and tunnel-infested 20-odd miles through New York City and vicinity is smack in the middle, and there are the numerous draws on the New Haven's part of the run. Yet this service has been speeded up by over four hours since 1909, representing a cut in time of over one-third. Of course the opening of Hell Gate Bridge in 1917 and subsequent electrification of two-thirds of the route contributed much to this result. It cannot be denied that this run has made a better showing in recent years than many routes on which Diesel power has taken over the high-speed work. Two cases in point are the New York to Pittsburgh run, which has improved only 20 percent since 1899, and the New York to Buffalo via the New York Central, on which time has been cut a paltry 7 percent. In fact the New York-Buffalo competitive runs, taken as a whole, make one of the poorest showings, the most enterprising line being DL&W with just over 15 percent reduction in time.

Once ridiculed for their slow trains, the southern lines have come a long way in the past quarter century. The most

brilliant Dixie speedups are, of course, those between the East, the Middle West and Florida. By 1941 the New York-Miami best time was 40 percent quicker than in 1899 while the newly established all-coach pooled streamliners effected nearly as big an improvement from Chicago. The year-around *Southerner* and *City of New Orleans* connecting the Crescent City with New York and Chicago respectively, the *Nancy Hanks II*, the *Humming Bird* and the *Silver Comet* are other trains which are helping to break down the tradition of southern leisureliness. Yet close analysis of many leading Dixie services—taken as a whole—reveals that these best times are just window-dressing.

Eliminate the *Humming Bird* from the Louisville & Nashville's Cincinnati-New Orleans timetable and we find the *Pan American* running about as she did in 1926, while the northbound *Azalian* is only 95 minutes faster than its predecessor of 1888! Except for a brief show of energy in the late '20s the rival Queen & Crescent Route has stood still since 1901. Take away the *Nancy Hanks II* and the Atlanta-Savannah schedules show up about as 40 years ago. Such old-line trains as the *Dixie Flyer, Seminole, Southland* and *Flamingo* remain year after year on two-nights-and-a-day or morning departure with morning arrival schedules, and the chances are remote that they will be changed in the immediate future. In a word there has not been in the South the great overall improvement in services that we find between New York and Chicago, New York to Boston or Washington, Chicago to the Twin Cities or St. Louis to Kansas City, where not just one train but the majority of trains have been speeded up through the years.

It is claimed that very long routes with little intermediate traffic are handicapped in the matter of speeding up schedules. In reply we have only to note the more than 50 percent cut in time between Portland and San Francisco. First the *Shasta* [illegible]*nited*, then the *Cascade*, and now the *Daylight* have given this route a service and a prestige beyond what might reasonably be expected. Or what of the Kansas City Southern between Kansas City and Port Arthur which few consider in discussing crack passenger runs? Here, too, time has been cut nearly in half and streamlined equipment is in service.

In the transcontinental, or very long distance field (runs of over a thousand miles), time has been cut approximately 40 percent and it is these, with the Chicago-Denver, which has come down nearly 45 percent since 1899, that have captured popular imagination, and rightfully so.

In terms of train time, the Santa Fe's *Texas Chief* brings Houston almost half the distance to Chicago it was at the turn of the century, while the *Texas Eagles* have clipped time on the St. Louis-San Antonio run by nearly 42 percent. One of the best records of all is that of the Rock Island's midcontinent route between Minneapolis and Houston over which the *Twin Star Rocket* has cut nearly 55 percent from the 1909 schedule! Another run which has been slashed by more than half is St. Louis-Denver via the Missouri Pacific, topping not only all other Denver-St. Louis runs but those from Chicago as well!

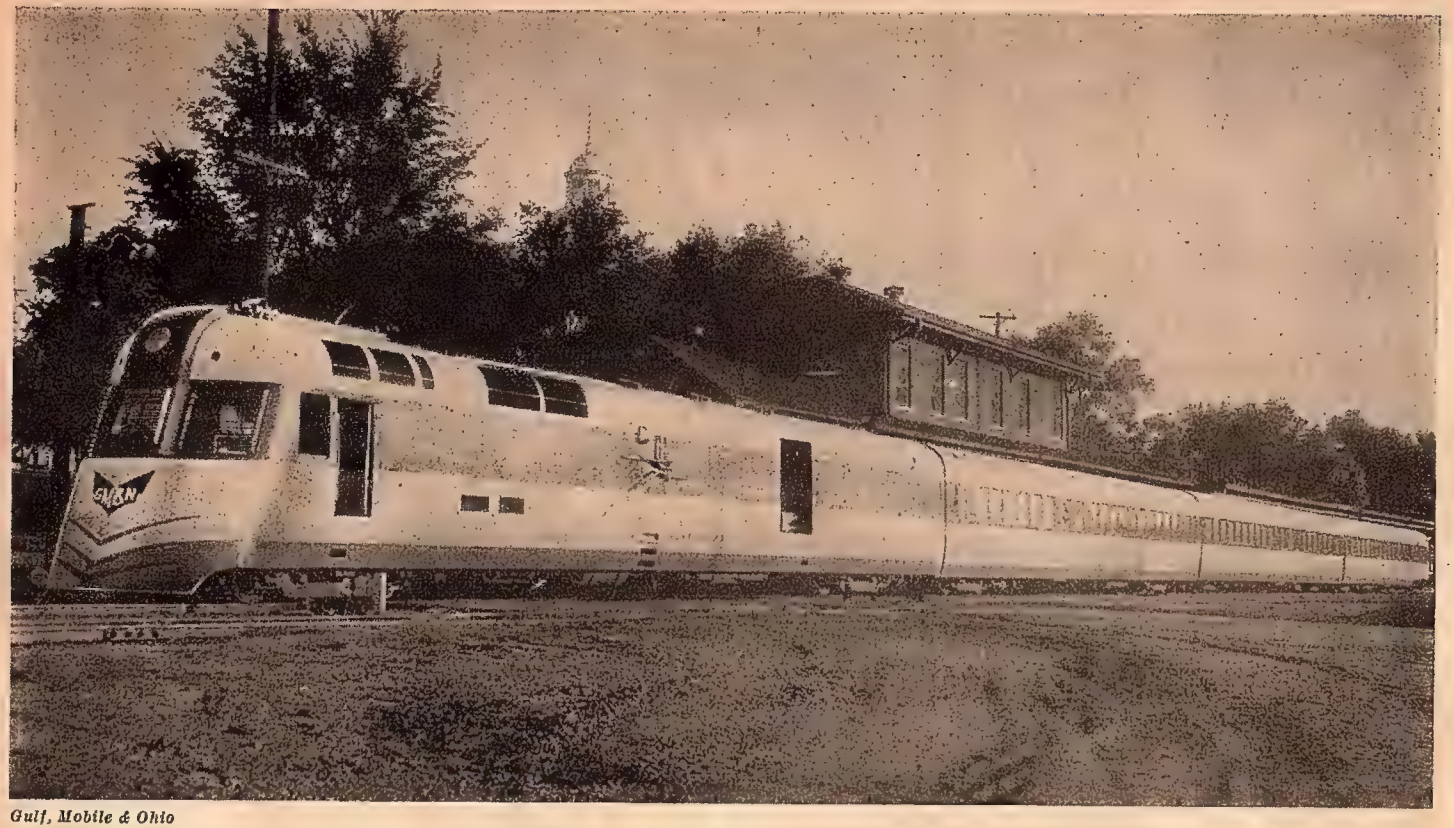
In closing we wish to state that all times shown in this article and tabulation are those in the *Official Guide* or public timetable folders, since it was our desire to show just what service was promised to the traveler. In some instances the actual operating times vary a few minutes from those listed. Too, in a few cases the times of special weekend trains have been selected, and these may be questioned by some. The answer is that this schedule was feasible under the operating conditions of the time, and that it would have been in force every day had traffic warranted. Wherever possible such weekend runs for one year have been compared only with similar runs for the other years listed.

And now we come to the jackpot question: what progress will the next half century show? Will the next age be that of *Talgo* or *Train X?*

...e Becker, 96 Avon Hill St., Cambridge, Mass.

...ething new in motive power got a toehold on the Boston & Maine and the Maine Central back on August 28, 1937. When a New England ...erpart of the Burlington's ***Pioneer Zephyr*** pulled out of Portland for Boston on an exacting 729-mile-a-day shuttle assignment which included one round trip to Bangor. Like the ***Flying Yankee,*** Dieselization spread to other parts of the system

Between		Route	Best Time Made in 1899	1909	1929	1949*	Fastest Time and Year	
			hr. min.	hr. min.	hr. min.	hr. min.		
Pittsburgh	—Chicago	Baltimore & Ohio	14 20	12 45	11 15	8 33	8 33	(1949)
		New York Central	13 45	12 05	11 00	10 20	8 50	(1941)
		Pennsylvania	12 30	9 04	9 50	7 52	7 50	(1947)
	—Cincinnati	Baltimore & Ohio	10 25	9 50	9 55	9 25	8 35	(1936)
		Pennsylvania	9 10	6 50	7 20	6 32	6 32	(1949)
	—Cleveland	Pittsburgh & Lake Erie—Erie	3 30	3 15	3 10	2 55	2 43	(1946)
		Pennsylvania	3 30	3 10	3 05	2 40	2 35	(1949)
	—Detroit	Pittsburgh & Lake Erie—Erie—New York Central	9 05	8 15	7 45	7 05	6 45	(1941)
		Pennsylvania	.....	8 20	7 25	6 21	6 20	(1949)
Toledo	—St. Louis	New York, Chicago & St. Louis	13 30	13 00	13 27	.....	12 39	(1901)
		Wabash	10 25	10 45	11 53	12 35	10 22	(1904)
Washington, D.C.	—Buffalo	Pennsylvania	16 15	11 40	11 30	11 35	10 45	(1935)
	—Chicago	Baltimore & Ohio	23 25	21 18	18 35	15 25	15 25	(1947)
		Pennsylvania	23 00	18 15	18 35	16 00	16 00	(1947)
	—Cincinnati	Baltimore & Ohio	17 10	17 00	14 35	11 30	11 30	(1947)
		Chesapeake & Ohio	17 29	16 30	17 00	14 00	13 45	(1947)
	—Cleveland	Baltimore & Ohio	14 12	14 40	12 00	9 55	9 38	(1946)
		Pennsylvania	16 35	13 30	12 25	11 20	11 20	(1949)
	—Detroit	Baltimore & Ohio	.....	.....	16 20	14 00	14 00	(1946)
		Pennsylvania	.....	19 15	16 30	14 35	14 25	(1948)
	—Pittsburgh	Baltimore & Ohio	7 55	8 13	7 22	6 40	6 37	(1939)
	—St. Louis	Baltimore & Ohio	27 12	26 40	22 23	19 30	19 25	(1949)
		Pennsylvania	27 30	23 25	22 55	19 45	19 45	(1942)
Wheeling	—Kenova	Baltimore & Ohio	5 50	6 20	7 20	7 00	5 50	(1899)
		SOUTHERN STATES						
Atlanta	—Augusta	Georgia Railroad	5 15	5 30	5 00	5 00	4 55	(1901)
	—Jacksonville	Central of Georgia—Atlantic Coast Line	15 35	10 20	10 20	10 20	8 55	(1939)
		Southern	9 20	9 00	9 40	8 45	8 40	(1940)
	—Macon	Central of Georgia	3 00	2 50	2 30	2 05	1 55	(1947)
		Southern	2 10	2 15	2 10	2 00	1 55	(1937)
	—Montgomery	Atlanta & West Point—Western Ry of Alabama	5 00	4 35	4 49	4 10	4 02	(1903)
	—New Orleans	Atlanta & West Point—Western Ry of Alabama—Louisville & Nashville	15 05	14 30	14 10	12 30	11 55	(1903)
		Central of Georgia	9 30	9 35	8 35	5 40	5 40	(1947)
	—Savannah	Louisville & Nashville	11 48	11 57	10 56	8 31	8 26	(1946)
Birmingham	—New Orleans	Southern	10 15	10 00	9 55	7 10	7 05	(1942)
Charleston	—Columbia	Atlantic Coast Line	4 00	4 47	4 20	4 50	3 22	(1888)
		Southern	4 00	3 35	3 55	3 10	3 10	(1946)
							3 15	(1888)
Chicago	—Atlanta	Chicago & Eastern Illinois—Nashville, Chattanooga & St. Louis	23 54	22 27	18 55	15 15	14 38	(1940)
	—Jacksonville	"Dixie Route"	32 50	33 40	29 45	23 30(T)	22 50(T)	(1941)
		"Illinois Central Route"	.....	34 05	29 45	23 30(T)	22 50(T)	(1941)
		"Pennsylvania Route" via Louisville	.....	.....	.....	23 30(T)	22 50(T)	(1941)
	—Memphis	Illinois Central	14 20	13 35	12 01	8 57	8 57	(1947)
	—Miami	"Dixie Route"	47 25	47 10	40 30	30 20(T)	29 10(T)	(1941)
		"Illinois Central Route"	.....	47 45	39 45	30 20(T)	29 10(T)	(1941)
		"Pennsylvania Route" (via Louisville)	.....	.....	.....	30 20(T)	20 10(T)	(1941)
	—Nashville	Chicago & Eastern Illinois—Louisville & Nashville	12 10	13 22	11 35	8 40	8 13	(1940)
	—New Orleans	Illinois Central	25 30	25 15	21 00	15 55	15 55	(1947)
	—St. Petersburg	Pennsylvania—Louisville & Nashville—Central of Georgia—Atlantic Coast Line	.....	47 05	36 30	34 00	31 50	(1936)
Cincinnati	—Atlanta	Louisville & Nashville	.....	14 00	12 35	11 30	11 20	(1941)
		Southern	13 55	14 50	12 50	11 10(W)	11 05	(1939)
	—Birmingham	Louisville & Nashville	14 37	14 25	12 42	10 17	10 17	(1947)



Gulf, Mobile & Ohio

Growth of the GM&N into the M&O—and Alton—absorbing GM&O was synonomous with that of the ***Rebel*** which began its career as this 4-car rail train in 1935. The thought behind it: "If you can't make money hauling passengers in standard equipment at high rates, haul them in extraordinary equipment at lower rates." It worked

Between		Route	Best Time Made in 1899	1909	1929	1949*	Fastest Time and Year	
			hr. min.	hr. min.	hr. min.	hr. min.		
Cincinnati	—Charleston	Southern	13 25	14 10	13 05	12 00	12 00	(1948)
	—Chattanooga	Southern	.....	.....	24 25	22 25	21 50	(1933)
	—Jacksonville	Southern	9 20	10 00	8 30	7 30(W)	7 25	(1941)
		Louisville & Nashville—Central of Georgia—Atlantic Coast Line	.....	24 10	23 40	23 45	20 25	(1939)
		Southern	23 30	24 10	23 00	22 30	21 20	(1939)
	—Memphis	Baltimore & Ohio—Illinois Central	14 30	14 40	13 40	14 30	12 40	(1937)
		Louisville & Nashville	14 25	14 15	12 40	13 05	12 15	(1934)
	—New Orleans	Baltimore & Ohio—Illinois Central	25 35	26 05	23 20	22 15	21 15	(1942)
		Louisville & Nashville	26 45	26 30	23 45	19 05	19 00	(1946)
		Southern	24 00	24 20	23 30	22 55	22 20	(1926)
Jacksonville	—Miami	Florida East Coast	11 40	12 00	8 30	6 30	5 59	(1940)
		Seaboard Air Line	.....	.....	10 20	6 55	6 30	(1941)
	—New Orleans	Seaboard Air Line—Louisville & Nashville	22 20	23 25	20 15	15 00	15 00	(1949)
	—St. Petersburg	Atlantic Coast Line	14 10	10 45	7 00	5 40(W)	5 20	(1940)
		Seaboard Air Line	.....	.....	8 00	5 45(W)	5 20	(1940)
	—Tampa	Atlantic Coast Line	6 58	8 20	6 35	5 40	5 00	(1940)
		Seaboard Air Line	7 58	8 00	5 50	4 05(W)	3 45	(1940)
Kansas City	—Jacksonville	St. Louis San Francisco—Southern	38 00	38 15	36 30	34 10	32 35	(1941)
Louisville	—Memphis	Illinois Central	10 45	10 50	9 45	8 57	8 52	(1947)
		Louisville & Nashville	10 50	10 45	9 13	9 35	8 53	(1939)
	—New Orleans	Illinois Central	21 55	22 25	19 00	15 55	15 30	(1947)
		Louisville & Nashville	23 18	23 00	20 18	16 00	15 55	(1946)
	—St. Louis	Louisville & Nashville	10 35	10 25	8 35	8 20	8 15	(1936)
		Southern	9 37	8 51	8 05	10 20(E)	7 56	(1904)
Memphis	—Nashville	Nashville, Chattanooga & St. Louis	8 40	8 15	7 00	5 00	5 00	(1947)
	—New Orleans	Yazoo & Mississippi Valley	13 10	15 15	14 30	15 30	13 10	(1899)
New Orleans	—Shreveport	Louisiana & Arkansas	.....	13 50	13 35	6 45	6 45	(1949)
		Texas & Pacific	12 30	11 35	9 05	7 55	7 55	(1949)
New York	—Atlanta	Seaboard Air Line	28 36	26 05	24 20	18 55	18 40	(1948)
		Southern	23 31	24 29	21 45	17 00	17 00	(1947)
	—Birmingham	Seaboard Air Line	.....	31 10	29 45	23 05	22 50	(1948)
		Southern	29 31	30 11	27 45	21 10	21 10	(1947)
	—Jacksonville	Atlantic Coast Line Route	25 16	25 35	23 15	17 50(W)	17 00	(1941)
		Seaboard Air Line Route	25 48	25 30	25 40	18 25	17 55	(1941)
	—Memphis	Pennsylvania—Southern—Norfolk & Western—Southern	39 16	33 53	32 50	28 25	26 50	(1941)
	—Miami	Atlantic Coast Line Route	40 00	37 45	32 15	25 10(W)	24 00	(1941)
		Seaboard Air Line Route	46 48(SF)	39 35(F)	33 50	25 20(W)	24 00	(1941)
	—New Orleans	Pennsylvania—Southern (via Birmingham)	.....	.....	.....	28 30	28 30	(1947)
		Pennsylvania—Southern—Atlanta & West Point—Louisville & Nashville	39 46	39 10	36 45	31 35	29 53	(1941)
		Pennsylvania—Southern—Norfolk & Western—Southern	40 01	40 00	38 50	30 45	30 45	(1947)
Norfolk	—Cincinnati	Norfolk & Western	27 00	22 40	19 50	15 35	15 35	(1946)
	—Richmond	Norfolk & Western—Atlantic Coast Line	2 20	2 20	2 33	2 00	2 00	(1949)
Richmond	—Jacksonville	Atlantic Coast Line	16 00	16 37	15 00	10 45	10 15	(1941)
		Seaboard Air Line	19 35	18 25	17 12	11 20	11 15	(1941)
St. Louis	—Atlanta	Louisville & Nashville—Nashville, Chattanooga & St. Louis	22 46	20 00	16 33	14 20	12 52	(1946)
	—Jacksonville	Louisville & Nashville—Nashville, Chattanooga & St. Louis—Central of Georgia—Atlantic Coast Line	35 31	34 30	27 23	23 10	21 35	(1941)
	—Memphis	Illinois Central	9 35	8 45	7 56	7 17	7 17	(1947)
		Missouri Pacific	11 27	12 30	8 00	9 30	8 00	(1927)
		St. Louis San Francisco	.....	9 57	7 15	8 15	7 15	(1928)
	—Mobile	Gulf, Mobile & Ohio	23 11	22 30	18 51	16 10	16 10	(1946)
	—Nashville	Louisville & Nashville	11 20	10 06	9 13	7 55	6 45	(1947)
	—New Orleans	Illinois Central	20 50	20 55	16 55	13 55	13 55	(1947)
Washington, D.C.	—Atlanta	Seaboard Air Line	22 50	20 15	19 00	14 10	14 10	(1949)
		Southern	17 42	18 29	16 20	12 40	12 40	(1948)
Washington, D.C.	—Memphis	Southern—Norfolk & Western—Southern	33 27	27 00	26 50	23 30	22 40	(1941)
	—Richmond	Richmond, Fredericksburg & Potomac	3 20	2 44	2 29	2 15	2 10	(1947)

MIDDLE WEST

Between		Route	Best Time Made in 1899	1909	1929	1949*	Fastest Time and Year
			hr. min.	hr. min.	hr. min.	hr. min.	
Chicago	—Ashland	Chicago & Northwestern	14 10	14 35	14 40	13 35	12 00(SS) (1949)
		Minneapolis, St. Paul & Sault Ste Marie	13 20	13 15	14 28	13 45	13 00 (1911)
	—Denver	Atchison, Topeka & Santa Fe	36 30	32 35	30 30	26 44	19 35 (1940)
		Chicago & Northwestern—Union Pacific	28 15	27 30	24 55	16 05	15 35 (1946)
		Chicago, Burlington & Quincy	28 20	27 30	24 55	16 05	15 35 (1946)
		Chicago, Rock Island & Pacific	33 29	27 58	27 40	18 50	18 50 (1941)
	—Des Moines	Chicago & Northwestern	9 40	9 40	8 39	6 15	6 15 (1949)
		Chicago Great Western	12 00	12 30	10 35	13 15	10 30 (1921)
		Chicago, Milwaukee, St. Paul & Pacific	10 20	10 35	9 35	6 45	6 15 (1941)
		Chicago, Rock Island & Pacific	8 18	8 50	8 12	5 55	5 55 (1940)
	—Duluth	Chicago & Northwestern	12 30	14 15	14 05	11 45	8 45 (1939)
		Minneapolis, St. Paul & Sault Ste Marie	16 50	16 45	14 35	13 45	13 30 (1942)
	—Ishpeming	Chicago & Northwestern	11 35	11 50	12 45	7 25	7 20 (1942)
	—Kansas City	Atchison, Topeka & Santa Fe	11 32	11 32	11 00	7 25	6 57 (1936)
		Chicago, Burlington & Quincy	14 30	13 40	14 00	12 25	12 00 (1931)
		Chicago, Milwaukee, St. Paul & Pacific	18 45	14 25	13 55	13 00	12 00 (1934)
		Chicago, Rock Island & Pacific	15 25	13 35	12 30	10 10	10 04 (1941)
		Gulf, Mobile & Ohio	14 15	13 00	12 00	12 45	11 30 (1935)
	—Madison	Chicago & Northwestern	3 03	3 20	3 38	2 30	2 30 (1942)
		Chicago, Milwaukee, St. Paul & Pacific	.....	3 50	3 35	2 45	2 45 (1938)
Chicago	—Milwaukee	Chicago & Northwestern	1 55	1 55	1 45	1 15	1 15 (1935)
		Chicago, Milwaukee, St. Paul & Pacific	1 55	1 55	1 45	1 15	1 15 (1935)
	—Omaha	Chicago & Northwestern	11 55	12 05	12 00	7 30	7 30 (1936)
		Chicago, Burlington & Quincy	13 35	13 25	12 15	7 30	7 30 (1949)
		Chicago, Milwaukee, St. Paul & Pacific	14 00	12 05	12 15	8 30	8 00 (1940)
		Chicago, Rock Island & Pacific	12 05	13 00	12 35	8 51	8 44 (1942)
		Illinois Central	14 35	14 15	14 15	.....	13 00 (1905)
	—Peoria	Chicago, Rock Island & Pacific	3 55	4 15	3 45	2 35	2 35 (1940)
		Chicago & Alton	4 30	4 00	4 30	.....	3 55 (1905)
	—St. Louis	Chicago & Eastern Illinois	.....	8 00	6 30	.....	4 55 (1940)
		Gulf, Mobile & Ohio	7 53	7 51	6 30	5 10	4 55 (1936)
		Illinois Central	8 00	8 00	6 30	5 10	4 55 (1936)
		Wabash	7 52	7 57	6 30	5 25	4 55 (1937)
	—St. Paul	Chicago & Northwestern	10 00	10 50	10 30	6 15	6 15 (1940)
		Chicago, Burlington & Quincy	13 15	12 20	10 30	6 15	6 00 (1940)
		Chicago Great Western	13 15	12 15	11 55	17 10	11 25 (1938)
		Chicago, Milwaukee, St. Paul & Pacific	12 05(G)	11 25	10 30	6 15	6 15 (1940)
		Chicago, Rock Island & Pacific	15 10	15 15	15 29	12 25	12 25 (1949)
	—Minneapolis	Illinois Central—Minneapolis & St. Louis	.....	13 45	.....	.....	13 25 (1905)
	—St. Paul	Minneapolis, St. Paul & Sault Ste Marie	13 50	13 45	12 30	13 10	12 15 (1930)
	—Sault Ste Marie	Minneapolis, St. Paul & Sault Ste Marie (Note 2)	17 40(M)	16 10(NW)	15 45(NW)	15 00(M)	14 30(NW) (1905)
	—Sioux City	Chicago & Northwestern	15 00	14 40	13 50	10 45	10 45 (1949)
		Chicago, Milwaukee, St. Paul & Pacific	14 55	13 40	12 55	9 18	8 55 (1941)
		Illinois Central	15 10	14 10	14 00	14 15	13 30 (1905)
Duluth	—Minneapolis	Great Northern	4 45	4 21	4 00	3 00	3 00 (1936)
	—St. Paul	Chicago & Northwestern	5 29	5 20	5 45	.....	5 00 (1902)
		Minneapolis, St. Paul & Sault Ste Marie	.....	.....	4 00	4 10	4 00 (1924)
		Northern Pacific	4 35	4 30	4 55	3 55	3 55 (1946)
Kansas City	—Billings	Chicago, Burlington & Quincy	33 23	34 00	34 15	27 15	26 55 (1937)
	—Denver	Atchison, Topeka & Santa Fe	21 40	20 45	18 45	17 29	12 33 (1940)
		Chicago, Burlington & Quincy	19 45	19 35	16 45	14 00	13 20 (1941)
		Chicago, Rock Island & Pacific	17 30	19 05	16 00	20 15	10 55 (1940)
		Missouri Pacific	25 10	23 50	17 50	13 15	12 50 (1942)
		Union Pacific	17 30	18 55	16 00	10 45	10 35 (1946)
	—Omaha	Chicago, Burlington & Quincy	6 50	6 20	5 40	4 20	3 50 (1936)
		Missouri Pacific	7 35	8 05	5 13	3 59	3 50 (1940)

Between		Route	Best Time Made in 1899	1909	1929	1949*	Fastest Time and Year	
			hr. min.	hr. min.	hr. min.	hr. min.		
Milwaukee	—Madison	Chicago & Northwestern	2 30	2 25	2 00	1 35	1 35	(1942)
		Chicago, Milwaukee, St. Paul & Pacific	2 40	2 40	2 10	1 30	1 30	(1948)
Minneapolis	—Fargo	Great Northern	5 55	6 35	5 40	4 16	4 16	(1949)
		Northern Pacific	6 55	6 03	5 39	5 10	5 10	(1945)
	—Fort Worth	Chicago, Rock Island & Pacific	45 20	44 05	33 20	20 04	19 49	(1947)
	—Houston	Chicago, Rock Island & Pacific—Fort Worth & Denver City	.....	56 50	48 00	25 30	25 14	(1947)
	—Kansas City	Chicago, Great Western	18 55	18 00	15 35	17 30	15 00	(1935)
		Chicago, Rock Island & Pacific	21 45(C)	22 20(C)	14 40	9 14	8 40	(1941)
	—Sault Ste Marie	Minneapolis, St. Paul & Sault Ste Marie	15 45	15 55	16 00	16 20	15 00	(1896)
Omaha	—Denver	Chicago, Burlington & Quincy	14 30	13 55	12 15	8 10	7 40	(1947)
		Chicago, Rock Island & Pacific	17 15	14 25	14 03	9 39	9 52	(1944)
		Union Pacific	14 40	14 15	12 15	8 05	7 35	(1948)
	—Ogden	Union Pacific	29 05	30 35	23 00	15 55	15 55	(1947)
St. Louis	—Denver	Chicago, Burlington & Quincy	27 11	26 50	24 00	20 48(BU)	18 40	(1940)
		Chicago, Rock Island & Pacific	.....	35 13	32 47	29 50	24 45	(1938)
		Missouri Pacific	38 40	32 30	25 40	18 25	17 55	(1946)
		Wabash—Union Pacific	26 55	26 50	24 00	16 00	15 40	(1947)
	—Des Moines	Wabash	11 30	10 58	11 00	10 40	9 55	(1947)
							9 59	(1904)
	—Kansas City	Chicago, Burlington & Quincy—Alton	9 53	7 53	7 20	7 25(B)	5 00	(1939)
		Chicago, Rock Island & Pacific	.....	9 45	8 15	9 30	8 06	(1931)
		Missouri Pacific	7 30	7 10	7 15	5 00	4 55	(1946)
		Wabash	7 15	7 15	7 20	5 00	4 50	(1946)
St. Louis	—Omaha	Chicago, Burlington & Quincy	14 24	14 24	14 00	12 33(BU)	9 20	(1937)
		Missouri Pacific	16 20	17 55	13 10	9 40	9 00	(1940)
		Wabash	13 05	12 24	12 00	12 05	11 35	(1946)
	—Peoria	Chicago & Alton	5 24	5 10	4 55	.....	4 40	(1928)
		Illinois Terminal	.....	.....	5 05	4 25	4 00	(1928)
	—Minneapolis	Chicago, Burlington & Quincy—Chicago, Rock Island & Pacific	18 00	18 25	18 15	14 58	14 00	(1941)
	—St. Paul	Wabash—Minneapolis & St. Louis	21 25	18 20	18 15	.....	18 15	(1929)
St. Paul	—Omaha	Chicago & Northwestern	12 30	10 55	10 30	9 20	8 45	(1948)
		Chicago Great Western	.....	10 50	10 15	10 40	10 00	(1937)
	—Winnipeg	Great Northern—Canadian National	17 05	14 10	14 35	12 00	11 58	(1948)
		Minneapolis, St. Paul & Sault Ste Marie—Canadian Pacific	.....	14 10	14 35	13 05	13 00	(1939)
		Northern Pacific—Canadian Pacific	17 05	14 15	14 50	12 35	12 35	(1946)
SOUTHWEST								
Chicago	—El Paso	Chicago, Rock Island & Pacific—Southern Pacific	.....	45 30	38 10	27 20	27 20	(1948)
	—Fort Worth	Atchison, Topeka & Santa Fe	36 55	35 00	27 40	18 55	18 55	(1948)
		Chicago, Rock Island & Pacific	37 25	35 20	33 19	22 25(DM)	21 40	(1947)
	—Houston	Atchison, Topeka & Santa Fe	49 30	46 00	45 20	25 00	25 00	(1948)
		Chicago, Rock Island & Pacific	.....	48 05	47 59	27 30(DM)	26 45	(1947)
	—Oklahoma City	Atchison, Topeka & Santa Fe	28 50	26 25	21 35	15 00	14 45	(1940)
	—Tulsa	Atchison, Topeka & Santa Fe	.....	24 37	19 40	12 40	12 40	(1940)
	—Wichita	Atchison, Topeka & Santa Fe	22 05	19 20	17 50	11 35	11 35	(1948)
		Chicago, Rock Island & Pacific	24 10	22 20	22 09	15 51(DM)	15 16	(1947)
Dallas	—El Paso	Texas & Pacific	24 40	26 00	17 10	15 05	14 35	(1948)
	—Houston	Fort Worth & Denver City	.....	8 40	10 10	4 00	4 00	(1937)
		Southern Pacific	8 55	7 55	6 29	4 25	4 25	(1938)
Denver	—Fort Worth	Colorado & Southern—Fort Worth & Denver City	28 12	28 30	26 05	16 30	16 30	(1949)
Fort Worth	—Houston	Atchison, Topeka & Santa Fe	12 10	10 45	9 00	5 50	5 50	(1948)
		Fort Worth & Denver City	.....	10 55	10 30	4 50	4 50	(1937)
		Missouri Pacific	.....	14 18	9 30	8 05	7 30	(1936)

Rail Photo Service

Golden Gate Exposition produced the ***Exposition Flyer***, a train-name which quickly outlived its significance. Denver & Rio Grande *Mikado* 1207, shown getting underway at Bond, Colo., gives a clue to its schedule, which was unimpressive. Successor is the swank, ***California Zephyr***

Between		Route	Best Time Made in 1899 hr.	min.	1909 hr.	min.	1929 hr.	min.	1949* hr.	min.	Fastest Time and Year	
Houston	—Brownsville	Missouri Pacific	.....		14	45	10	30	8	30	8 30	(1949)
Kansas City	—Dallas	Missouri, Kansas & Texas	18	22	15	19	14	00	11	05	10 30	(1948)
		St. Louis—San Francisco	.....		.....		20	30	.....		12 20	(1946)
	—Fort Worth	Atchison, Topeka & Santa Fe	20	20	22	25	15	30	10	50	10 50	(1948)
		Chicago, Rock Island & Pacific	20	15	20	20	17	50	10	25	10 10	(1941)
		Missouri, Kansas & Texas	18	35	15	24	14	10	11	10	10 40	(1946)
	—Houston	Atchison, Topeka & Santa Fe	34	30	33	25	31	55	16	50	16 50	(1948)
		Chicago, Rock Island & Pacific—Fort Worth & Denver City	.....		.....		32	10	15	40	15 30	(1945)
	—Little Rock	Missouri Pacific	22	10	21	25	14	50	15	29	12 25	(1937)
	—Memphis	St. Louis—San Francisco	13	20	14	00	12	00	12	50	11 30	(1939)
	—New Orleans	Kansas City Southern—Louisiana & Arkansas	.....		.....		32	50	18	00	18 00	(1949)
	—Oklahoma City	Atchison, Topeka & Santa Fe	12	56	13	50	9	25	6	50	6 50	(1948)
		Chicago, Rock Island & Pacific	.....		15	00	12	15	7	05	7 05	(1949)
		Missouri, Kansas & Texas	.....		12	35	9	25	9	20	9 10	(1942)
		St. Louis—San Francisco	.....		12	25	11	00	10	45	7 00	(1940)
	—Fort Arthur	Kansas City Southern	33	00	31	45	24	15	17	00	17 00	(1949)
	—Tulsa	Atchison, Topeka & Santa Fe	.....		10	10	7	15	4	50	4 50	(1940)
		St. Louis—San Francisco	.....		8	10	7	10	5	44	4 45	(1940)
	—Wichita	Atchison, Topeka & Santa Fe	7	00	6	45	5	00	3	35	3 35	(1948)
		Chicago, Rock Island & Pacific	7	45	7	10	6	15	3	44	3 39	(1941)
Memphis	—Amarillo	Chicago, Rock Island & Pacific	.....		31	55	23	10	21	20	16 35	(1940)
	—Dallas	Missouri Pacific	19	20	19	35	12	50	11	00	11 00	(1936)
		St. Louis—Southwestern	20	20	20	30	13	25	13	45	11 20	(1940)
	—Little Rock	Chicago, Rock Island & Pacific	5	09	3	50	3	14	2	25	2 20	(1943)
		Missouri Pacific	5	35	6	30	3	15	3	05	2 55	(1938)
	—Oklahoma City	Chicago, Rock Island & Pacific	19	55	18	50	14	10	10	30	10 30	(1941)
New Orleans	—Dallas	Texas & Pacific	21	15	19	50	14	00	12	40	12 40	(1949)
	—El Paso	Southern Pacific	33	55	44	35	32	30	26	40	26 40	(1949)
		Texas & Pacific	47	00	49	26	33	35	29	55	28 30	(1948)
	—Houston	Missouri Pacific	.....		14	05	10	10	9	50	9 40	(1939)
		Southern Pacific	10	00	12	00	9	50	8	00	8 00	(1949)
St. Louis	—Dallas	Missouri Pacific	21	10	22	50	17	50	14	00	14 00	(1948)
		St. Louis—San Francisco—Atchison, Topeka & Santa Fe	22	35	22	50	24	02	23	00	20 41	(1936)
		St. Louis—San Francisco—Missouri, Kansas & Texas	23	56	22	55	17	50	13	40	13 22	(1948)
		St. Louis Southwestern	31	40	31	13	31	33	23	58	19 00	(1933)
	—El Paso	Missouri Pacific—Texas & Pacific	42	00	49	05	35	05	29	30	29 00	(1948)
	—Houston	Missouri Pacific	32	15	28	18	21	50	16	20	16 20	(1948)
	—Mexico City	Missouri Pacific—National Rys. of Mexico (via Laredo)	71	55	71	30	62	40	48	20	48 20	(1948)
	—Oklahoma City	St. Louis—San Francisco	21	00	17	55	14	45	12	45	11 00	(1948)
	—San Antonio	Missouri Pacific	31	05	28	20	25	45	18	10	18 10	(1949)
		St. Louis—San Francisco—Missouri, Kansas & Texas	35	11	33	20	25	45	20	29	20 00	(1948)
	—Tulsa	St. Louis—San Francisco	15	40	13	30	11	05	10	00	8 32	(1948)
	—Wichita	Missouri Pacific	17	05	17	20	13	23	12	02	10 56	(1940)
		St. Louis—San Francisco	18	04	17	50	14	35	15	00	14 35	(1929)
Tulsa	—Dallas	St. Louis—San Francisco	.....		.....		8	55	9	15	6 35	(1946)

TRANSCONTINENTAL

Chicago	—Los Angeles	Atchison, Topeka & Santa Fe	66	15	71	59	58	00	39	45	39 45	(1936)
		Chicago & North Western—Union Pacific	83	30(SP)	71	59	61	15	39	45	39 45	(1936)
		Chicago, Rock Island & Pacific—Southern Pacific	.....		71	55	61	15	45	00	45 00	(1948)

Between		Route	Best Time Made in 1899 hr. min.	1909 hr. min.	1929 hr. min.	1949* hr. min.	Fastest Time and Year	
Chicago	—Portland	Chicago & Northwestern—Union Pacific	72 45	71 59	61 15	40 00	39 30	(1946)
		Chicago, Burlington & Quincy—Great Northern	84 00(CN)	72 00	61 15	44 30	44 30	(1949)
		Chicago, Burlington & Quincy—Northern Pacific	82 50(CM)	71 25	61 30	56 45	56 45	(1949)
	—San Francisco (Oakland Pier)	Atchison, Topeka & Santa Fe	.....	83 14(FP)	68 53(FP)	48 00	48 00	(1947)
		Chicago & Northwestern—Union Pacific—Southern Pacific	70 32	71 15	57 25	39 15	39 02	(1939)
		Chicago, Burlington & Quincy—Denver & Rio Grande Western—Western Pacific	.....	85 47(10)	88 00	49 15	48 45	(1949)
	—Seattle	Chicago, Burlington & Quincy—Great Northern	74 30(CN)	71 50	61 15	45 00	45 00	(1947)
		Chicago, Burlington & Quincy—Northern Pacific	77 35(CM)	71 15	61 15	55 45	55 15	(1949)
		Chicago, Milwaukee, St. Paul & Pacific	.....	71 44(11)	61 15	45 00	45 00	(1947)
		Chicago & Northwestern—Union Pacific	87 15	81 44	68 15	45 05	43 45	(1942)
Chicago	—Vancouver	Minneapolis, St. Paul & Sault Ste Marie—Canadian Pacific	.....	.....	72 15	66 35	65 35	(1940)
Memphis	—Los Angeles	Chicago, Rock Island & Pacific—Southern Pacific	.....	.....	61 16	56 55	56 30	(1934)
New Orleans	—Los Angeles	Missouri Pacific—Atchison, Topeka & Santa Fe	.....	.....	69 20	52 05	51 35	(1949)
		Southern Pacific	57 20	75 35	55 35	46 25	46 25	(1949)
	—San Francisco	Texas & Pacific—Atchison, Topeka & Santa Fe	.....	.....	78 33	57 28(OD)	56 58(OD)	(1949)
		Southern Pacific	71 52	82 18	71 20	57 00	57 00	(1949)
St. Louis	—Los Angeles	Missouri Pacific—Southern Pacific	66 15	69 25	60 05	54 00	54 00	(1949)
		Wabash—Union Pacific	92 15	77 28	66 50	47 45	47 45	(1949)
	—Portland	Wabash—Union Pacific	81 00(OM)	77 28	68 10	50 15	50 15	(1949)
	—San Francisco (Oakland Pier)	Missouri Pacific—Denver & Rio Grande Western—Western Pacific	.....	.....	74 58	63 31	63 31	(1949)
		Wabash—Union Pacific—Southern Pacific	79 17	75 25	66 50	47 30	47 30	(1949)
St. Paul	—Portland	Great Northern—Spokane, Portland & Seattle	69 00	59 40	50 30	37 15	37 15	(1949)
		Minneapolis, St. Paul & Sault Ste Marie—Canadian Pacific—Spokane International—Union Pacific	.....	61 00	67 25	69 30	59 30	(1907)
		Northern Pacific—Spokane, Portland & Seattle	69 15	58 55	50 45	47 00	47 00	(1949)
	—Seattle	Chicago, Milwaukee, St. Paul & Pacific	.....	58 35	50 40	38 40	38 40	(1947)
		Great Northern	63 28	59 30	50 30	37 45	37 45	(1949)
		Northern Pacific	64 00	58 45	50 30	46 00	45 30	(1949)
	—Vancouver	Minneapolis, St. Paul & Sault Ste Marie—Canadian Pacific	66 30	71 45	58 45	57 45	57 15	(1942)
		Great Northern—Canadian National	.....	.....	67 35	58 30	58 15	(1941)

FAR WEST AND PACIFIC COAST

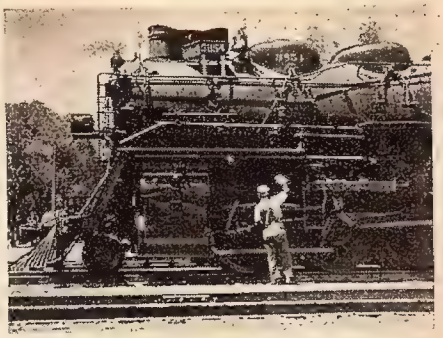
Denver	—Billings	Chicago, Burlington & Quincy (via Alliance)	23 40	24 00	23 45	22 30	18 45	(1940)
		Chicago, Burlington & Quincy (via Cody)	.....	.....	24 30	22 00	20 55	(1939)
	—Salt Lake City	Denver & Rio Grande Western (via Moffat)	.....	.....	.....	13 20	13 00	(1941)
		Denver & Rio Grande Western (via Pueblo)	24 10	27 25	25 00	21 40	21 40	(1947)
		Union Pacific	20 15	21 10	17 10	14 00	12 00	(1946)
Los Angeles	—San Francisco (Oakland Pier)	Southern Pacific (Coast Route)	.....	13 30	12 00	9 45	9 30	(1940)
		Southern Pacific (San Joaquin Valley Route)	14 17	13 33	14 08	11 15	11 10	(1949)
		Atchison, Topeka & Santa Fe	.....	15 55(11)	18 38	9 18(OB)	8 50(OB)	(1940)
Ogden	—San Francisco (Oakland Pier)	Southern Pacific	26 47	26 01	21 07	15 00	14 47	(1939)
Portland	—Los Angeles	Southern Pacific	53 00	53 35	34 25	27 10	27 10	(1949)
	—San Francisco (Oakland Pier)	Southern Pacific	34 48	26 50	21 25	15 00	15 00	(1949)
	—Seattle	Northern Pacific (Note 3)	6 50	6 20	5 15	4 09	3 40	(1942)
	—Spokane	Spokane, Portland & Seattle	.....	11 15	9 50	7 24	7 24	(1949)
		Union Pacific	15 30	14 00	10 00	9 30	9 25	(1946)

Between		Route	Best Time Made in 1899	1909	1929	1949*	Fastest Time and Year	
			hr. min.	hr. min.	hr. min.	hr. min.		
Sacramento	—Oakland Pier	Southern Pacific	2 22	2 40	2 27	1 45	1 35	(1939)
Salt Lake City	—San Francisco (Oakland Pier)	Western Pacific	.....	29 30(10)	26 30	18 50	18 50	(1949)
Spokane	—Seattle	Chicago, Milwaukee, St. Paul & Pacific	.....	.....	9 00	7 10	7 10	(1947)
		Great Northern	14 45	12 30	10 00	8 00	7 59	(1947)
		Northern Pacific	14 40	12 45	12 00	10 25	9 45	(1947)
Seattle	—Vancouver	Great Northern	7 35	5 25	5 15	4 20	4 05	(1948)
CANADA								
Calgary	—Edmonton	Canadian Pacific	9 00	7 15	6 25	5 25	5 00	(1937)
Halifax	—St. John	Canadian National	9 00	9 00	9 30	8 40	8 30	(1895)
	—Yarmouth	Canadian National	.....	9 35	9 15	9 15	9 00	(1937)
		Dominion Atlantic	7 00	7 00	7 20	8 35	7 00	(1899)
Montreal	—Chicago	Canadian National	23 20	23 25	21 15	17 30	17 30	(1932)
		Canadian Pacific—Michigan Central	25 00	24 45	22 30	17 40	17 30	(1932)
	—Halifax	Canadian National	26 25	24 35	24 00	22 50	22 50	(1947)
	—Minneapolis	Canadian Pacific—Minneapolis, St. Paul & Sault Ste. Marie	36 25	36 25	36 10	36 55	35 50	(1928)
	—Ottawa	Canadian National	2 30	3 15	2 40	2 25	2 15	(1932)
		Canadian Pacific	2 20	3 00	2 40	2 10	2 10	(1937)
	—Quebec (Levis)	Canadian National	5 00	4 35	4 30	3 40	3 35	(1948)
	—Quebec	Canadian Pacific	4 30	5 00	4 45	3 45	3 45	(1946)
	—St. John	Canadian Pacific	15 35	15 05	16 05	14 25	14 00	(1946)
	—Toronto	Canadian National	8 20	7 30	7 40	6 15	6 00	(1930)
		Canadian Pacific	9 45	9 35	8 00	8 40	6 15	(1931)
Montrea.	—Vancouver.	Canadian National	.....	.....	103 35	82 30	82 00	(1941)
		Canadian Pacific	97 55	102 35	87 00	82 50	82 20	(1941)
Toronto	—Chicago	Canadian National	13 15	14 55	12 30	11 00	10 55	(1939)
		Canadian Pacific—Michigan Central	15 00(WB)	14 45	12 35	11 10	10 55	(1942)
	—Detroit	Canadian National	6 00	6 20	6 25	6 10	5 40	(1902)
		Canadian Pacific	7 15	6 50	5 55	5 00	5 00	(1942)
	—Ottawa	Canadian National	.....	.....	7 10	6 00	5 45	(1931)
		Canadian Pacific	7 55	7 58	7 15	7 50	5 30	(1932)
	—Vancouver	Canadian National	.....	.....	90 10	80 10	79 45	(1941)
		Canadian Pacific	94 55	98 50	82 10	80 00	79 45	(1941)

**Oct. schedule unless otherwise noted.* (A) *Summer season weekly train* Timberline *established in 1947.* (B) *This service withdrawn Sept. 25, 1949.* (C) *Via Cedar Rapids and Columbus Junction—121 miles longer than present route.* (E) *St. Louis Terminal—East St. Louis, Ill.* (F) *Florida East Coast Railway south of Jacksonville.* (G) *Established 10 hour schedule in 1900.* (H) *New York Terminal—Hoboken.* (J) *New York Terminal—Jersey City.* (L) *New York Terminal—Long Island City.* (M) *Milwaukee Road Route.* (N) *Northbound.* (O) *Oregon Railroad & Navigation Co. west of Spokane.* (S) *Southbound.* (T) *Every third day.* (W) *Winter season 1948-1949* (BU) *Via Burlington.* (CM) *Chicago & Northwestern or Milwaukee Road east of St. Paul.* (CN) *Chicago & Northwestern east of St. Paul* (DM) *Via Des Moines.* (FP) *San Francisco Terminal—Ferry Point,* (NW) *Chicago & Northwestern Route.* (OB) *San Francisco Terminal—Oakland. Bus service between Bakersfield and Los Angeles.* (OD) *San Francisco Terminal—Oakland.* (OM) *Via Omaha.* (SF) *Southern Railway north of Columbia, Florida East Coast Ry south of Jacksonville.* (SP) *Via Sacramento and Southern Pacific Railway.* (SS) *Summer schedule.* (TB) *Train & bus combination.* (WB) *Wabash Railway west of Detroit.* (WN) *New York Terminal—Weehawken.* (10) *Through service established in 1910.* (11) *Through service established in 1911.* Note 1: *Prior to 1900, West Shore Railroad east of Buffalo.* Note 2: *Prior to 1930 this service frequently shifted between the Milwaukee Road—Pembine Route and the Chicago & Northwestern—Escanaba Route. Since 1930 it has continued over the former.* Note 3: *Pooled service with Great Northern Ry. and Union Pacific RR. since 1931.*

SANTA FE'S MIGHTY 3800s

Story and Photos
by
H. L. KELSO

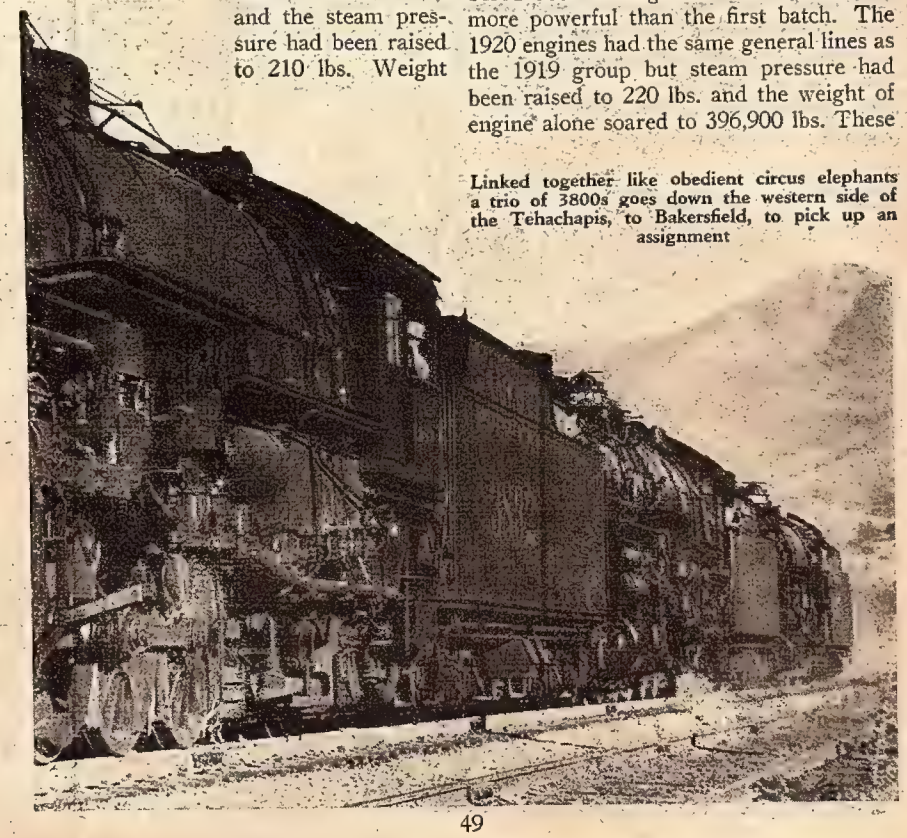


As well-groomed as a champion draft-horse and in perfect mechanical condition, No. 3854 belies her years of hard work since delivery in 1923

IN 1919 the Santa Fe took delivery of thirty of the finest freight engines the world had ever seen—the first of the now-famous Baldwin-built 3800s.

Santa Fe freight hoggers received the surprise of their lives when the new locomotives made their appearance, for here was a dream engine, no less. Both rugged and speedy they were a far cry from the slow, low-wheeled 900 and 1600 Class 2-10-2s, the originals of the *Santa Fe*-type locomotive, first outshopped by Baldwin in 1903-04. Cylinders on the new 3800s were 30x32 and the steam pressure had been raised to 210 lbs. Weight of the engine alone was 322,200 lbs. and driver diameter was 63 inches, which made the engines fast though holding their tractive effort to a mere 81,500 lbs.

In 1920 another ten engines were received from Baldwin. These were numbered 3830 through 3839 and were even more powerful than the first batch. The 1920 engines had the same general lines as the 1919 group but steam pressure had been raised to 220 lbs. and the weight of engine alone soared to 396,900 lbs. These



Linked together like obedient circus elephants a trio of 3800s goes down the western side of the Tehachapis, to Bakersfield, to pick up an assignment

Engine 3866 heads a westbound extra one mile out of Victorville, Calif. She is one of twenty-six 3800-class locomotives delivered to the Santa Fe in 1923 (Nos. 3850 through 3875). Though nearly identical with ten locomotives delivered in 1921 these 26 were heavier, and two of them (3868 and 3869) came equipped with trailing truck boosters

factors increased the tractive effort to 85,360 lbs.

In 1921, Numbers 3840 through 3849 were received from Baldwin and this batch of ten engines were identical with those outshopped in 1920.

No locomotives were received in 1922, but in 1923 twenty-six new 3800s came steaming onto Santa Fe iron. These were numbered 3850 through 3875. Engines 3850 through 3867 were nearly identical with the 1921 batch but engine weight had increased to 397,600 lbs. Numbers 3868 and 3869 came equipped with trailing truck boosters which increased the engine weight to 405,100 lbs. The remaining six engines, Numbers 3870 through 3875 had a tractive effort of only 81,500 pounds due to a decrease in steam pressure from 220 to 210 lbs. However, engine weight was listed at 405,100 lbs.

In 1924 another fifteen engines came to the Santa Fe from the Baldwin Works, seven of them (Numbers 3876 through 3882) weighing 400,490 lbs. each. The boiler pressure had again been raised to 220 lbs. Engines 3883 through 3890 were outshopped with boosters which raised their weight to 409,500 lbs. making them the heaviest of all the 3800 Class.

No engines were received in 1925 but in 1926 the last of the 3800s were delivered to the Santa Fe by Baldwin. Engines 3891 through 3899 were listed as each weighing 402,470 lbs. and for the most part were identical with the 1924 deliveries. Although the Santa Fe had run out of its string of 3800 numbers, the series continued on into the 3900s and engines 3900 through 3915 also went onto the 2-10-2 roster. The first sixteen 3900 Class *Santa Fes* were identical with Engine 3899.

Completing the record of the Santa Fe's mighty *Santa Fes* we find that the last 25 engines were received from Baldwin in 1927. Engines 3916 through 3930 weighed 413,500 lbs. and were the heaviest of all the 2-10-2s ever to run on the Santa Fe. Last of the long series, engines 3931 through 3940, weighed 403,900 lbs. each.

And there we have it, a brief history of the Santa Fe's mighty *Santa Fes,* one of the world's most efficient freight locomotives. Today they are used as standby power and in helper service on the big hills. Their top speed allowance is 55 miles per hour in either passenger or freight service.

But far from being ready for the scrap heap the 3800s can still be classed with the finest steam locomotives on the rails. Always beautifully kept in appearance, and in fine mechanical condition they are a tribute and a monument to their designers. Their days are numbered, due to the advent of the dainty, pastel-painted Diesel, but they'll be around for standby service for a long time to come. Home terminals for most of the 3800s today are at Barstow, Bakersfield and San Bernardino.

Specifications of the 3870

Cylinders	30 x 32	Engine Weight	405,100
Drivers	63	Tractive Effort	81,500
Pressure	210	Builder	Baldwin
Grate Area	88.3	Date	1923

As Extra 3839 West pauses at Victorville, Calif. for water, sister engine 3859, *at left*, crosses over to the mainline to doublehead her for the long pull over the big hill of the San Berdoo Mountains. Tomorrow might see these engines in Mojave or Bakersfield, as the 3800s work out of Barstow on both the Arizona and Los Angeles divisions

Hinged smoke-stack extension improves the roaring draft of the lumbering Santa Fes where California's sky is the only clearance restriction. Here No. 3891 turns her back on a 4-unit Diesel-electric to help it over a stiff hill. No longer used in through service the 3800s now earn their keep in such routine chores as this

Here again is No. 3859, this time giving an assist over the Tehachapis to the eastbound *Grand Canyon Limited*, Frisco-Chicago section. The road engine of the passenger train is not a 3800-class locomotive; she is No. 3751, Santa Fe's first 4-8-4

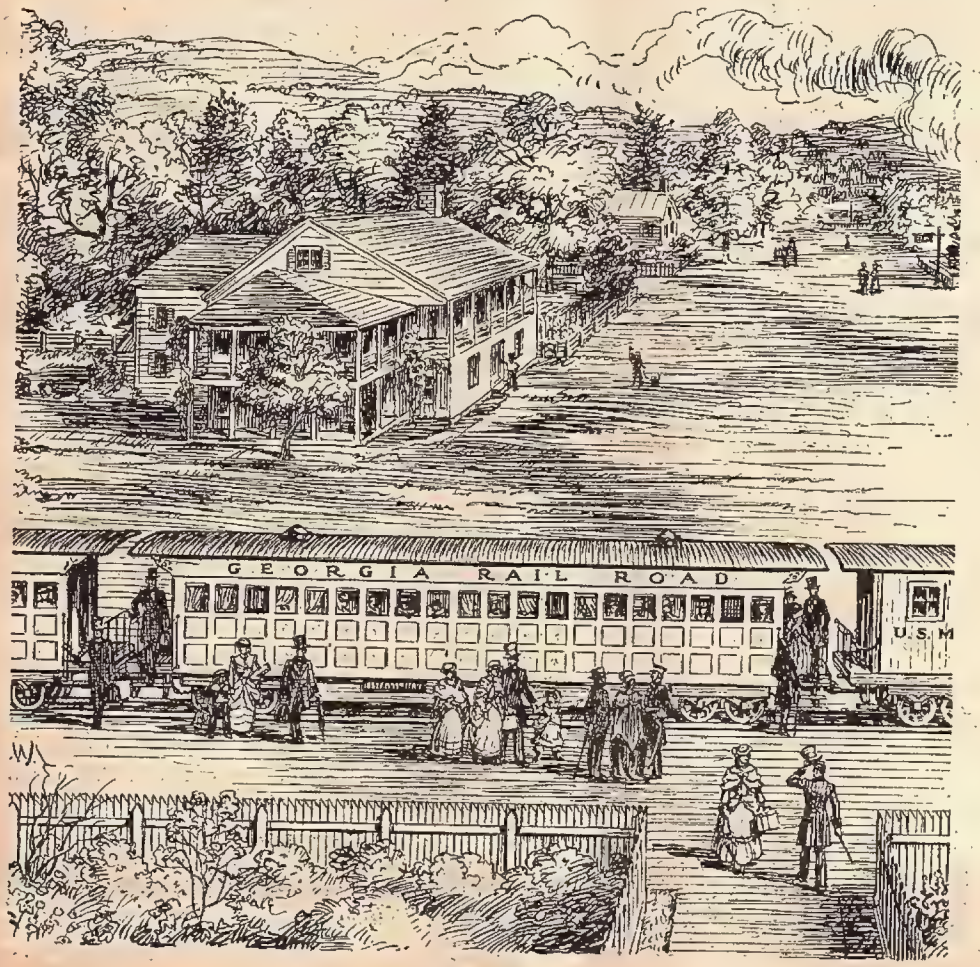
And there they go—over the big hill and into the sunset. The mountain canyons of California have echoed the blasts of bigger locomotives, but none finer, and when the last 3800 makes that final, one-way trip to the scrap pile much of the romance of railroading will be destroyed with her

COTTON and a Yankee Build the GEORGIA RAILROAD

By WILLIAM H. HILLYER

IT'LL TAKE an Act of God to wake 'em up. Nothing short of a providential visitation!" The speaker, genially round-faced Asbury Hull, well-to-do citizen of Athens, Ga. was not his optimistic self that afternoon in the fall of 1832. He had come from a stockholders' meeting of the half-complete local cotton factory. Following formal adjournment, he had vainly tried to arouse interest in a proposed railroad that would connect Athens with Augusta on the Savannah River.

"I told them," he said to his post-conference interlocutor, a young lawyer



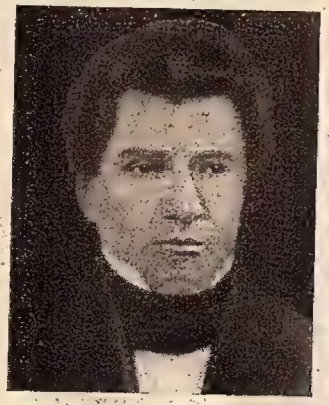
named Junius Hillyer, "that the railroad idea is no longer visionary and that if Athens is ever to be a sure enough city she must have rail transportation. Truth is, Georgia's cotton crop has outgrown her means of moving it. Think of half a billion pounds being teamed to Augusta each season, a hundred-mile average, over roads so bad that ten miles a day is top speed in good weather! I reminded them that by contrast Baltimore and Charleston are already having the benefit of steam-drawn trains. I went into detail about the charter that those Augusta people got from the Georgia Legislature last December. Mind you, it gives authority to build and operate a 'railroad or turnpike' from 'Augusta to Eatonton and thence westward to the Chattahoochee River, with branches thereto.' One of those branches, of course, will connect with Athens. All that's needed is for us gentlemen here at Athens to get behind the enterprise—"

"And wait for Providence to pass another Act," Hull's friend finished.

The conversation proved prophetic.

Stone Mountain Station (1849) by Emmet Watson, based on an oldtime painting of scene. Engine pictured carries legend "Norris Bros., Philadelphia" on driver rims; was of type put into service in 1847

Within a few weeks torrential rains began, and the winter of 1832-3 was the stormiest and wettest in Georgia's history. A shipload of machinery from England, to be used at the new factory, was hopelessly trapped in the red clay not far out of Augusta. James A. Camak, William Williams, William E. Dearing and other losers by the disaster had to wait until spring for their precious equipment to be dug out and to continue, much damaged, in its journey.



James A. Camak

From that disaster arose the Georgia Railroad & Banking Company. At the next session of the Legislature, on December 21, 1833, an Act was passed to incorporate the Georgia Railroad Company with powers to construct a railroad "between the City of Augusta and some point in the interior of the State, which Road shall be called the Union Railroad." Upon its completion the company was to build three branch railroads, beginning at the Union road: "one running to Athens, one to Eatonton, and the third to Madison in Morgan County." Concurrently, the Augusta-Eatonton Act of 1831 was rescinded.

A significant provision of the charter foreshadowed the corporation's banking activities. This provision was in line with the practice initiated a third of a century earlier by Alexander Hamilton when he formed the Manhattan Company in New York with authority to pump water and lend money. The Georgia Railroad Company was permitted to invest from time to time such parts of its capital or profits "as may not be required for immediate use," in U. S. Government or Georgia State securities or in the stock of "any incorporated Bank, or lend out the same at interest on good security" at no greater annual rate than 8 percent. Surely, the hands of those canny Athenians had not lost their cunning. During hard times revenue from the bank balanced any rail deficits.

Sponsors of the enterprise were in a peculiar position. The Georgia Railroad had no promoters. Its proponents were each so jealous of his own prestige, that none dared to risk fathering a fiasco. Willing incorporators and able to invest money in the enterprise, they held back from soliciting subscribers to the shares. The charter contemplated the (then) stupendous sum of $1 million, all common stock. No mechanism of construction companies or land syndicates had been provided, whereby a few insiders might profit by putting the project together. A loan of $1 million to be floated in New York was discussed vaguely, but was deemed inadvisable "until the line of the road was located and a right-of-way attained."

"What we need," declared blunt-tongued John A. Cobb, "is somebody to start this stock list and then peddle it up and down."

THE ACT had stipulated that 5000 shares of $100 each, representing half the million-dollar capital, must be subscribed within three months after the measure's passage; otherwise the charter would become void. With the limit well-nigh upon them, the road's backers met in James Camak's home in Athens at noon on March 10, 1833. From tradition and official minutes we can reconstruct the scene.

At the head of a mahogany table in the middle of the library was the host, a man of forty-odd whose pompadour and black neckstock were of equal dignity. On his right was William Dearing, Virginian by birth and dean of the assemblage. To the host's left, keen-eyed William Williams busied himself with two leather-bound volumes flaked by fresh quills. About 25 incorporators and others were

present, seated at the table or clustered around the wood fire. Among these last was Junius Hillyer, invited at the suggestion of Colonel Cobb.

Camak addressed the meeting after his position as chairman and that of Williams as secretary had been ratified by vote.

"Gentlemen, you have been called together on a matter that affects the future of Athens and of the whole State. Only ten days remain in which the requirements of the Georgia Railroad charter must be complied with. We must decide before we adjourn whether or not to accept the charter and effect such compliance. Do I hear any suggestions? Mr. Dearing?"

"Mr. Chairman, as I understand it, five hundred thousand dollars must be subscribed and five percent thereof be paid in before the time limit expires. If we're going ahead with this thing we'll have to start getting subscriptions without delay. Colonel Cobb and I have therefore taken the liberty of inviting Mr. Junius Hillyer to be present with us. He has a very active legal practice throughout the Western Circuit, and knows everybody along the proposed route. We've talked with Mr. Hillyer, and he is willing to go out and help us without compensation."

This information met with instant favor, for reasons manifest in a dozen countenances. To arm this relatively poor young man with a subscription list was an easy solution. Should he make a sizable start, the others could come forward with liberal subscriptions. Were he unsuccessful, the failure would not be theirs.

Voted the assignment, which he accepted with modest thanks, Junius was handed the subscription book so that he could copy the heading onto the list that he was to take with him. He fingered the first page with its unsullied blanks.

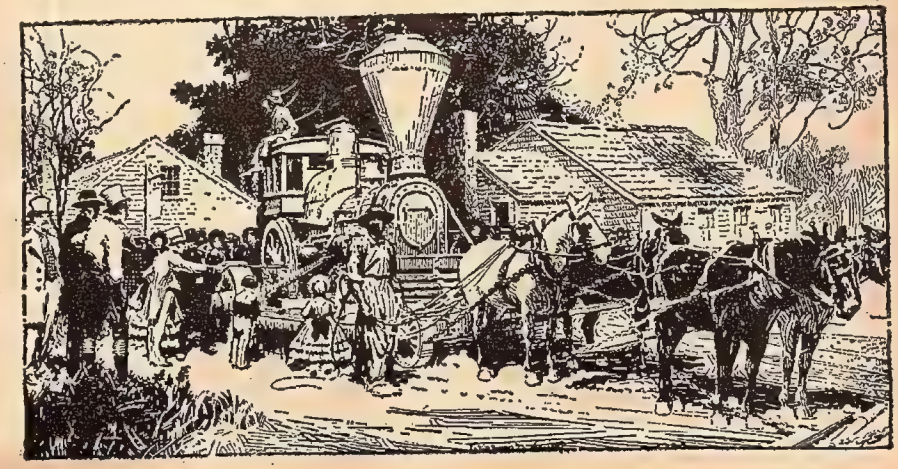
"I suppose the best place to begin," he murmured, "is here in this room."

Incorporators and their fellows glanced quarterwise at one another, each expecting that Hillyer would ask *him* to top the list. Instead, the attorney dipped a quill in the ink and wrote: *"Junius Hillyer, 100 shares, $10,000."* Then he stacked $500 as a requisite first payment alongside the book while the secretary was reading the subscription aloud.

In lieu of comment, the astonished enterprisers adjourned for dinner, to reassemble at three o'clock in the office of W. D. Mitchell. There the group was told that during the interim 725 addi-

Georgia's early share-the-wealth plan included carting an engine 60 miles in 1842 to lend Western & Atlantic power for its rails. Two lines met at Terminal (later Atlanta)

Library of Congress



tional shares had been subscribed and that William Williams, acting for himself and certain associates, had pledged a subscription for the remaining 4125 shares to make up the required minimum of $500,000 par value. He had advanced the necessary funds, in the expectation of being reimbursed as the stock was taken up.

With the aid of this—perhaps America's first railroad "under-writing syndicate"—the Georgia Railroad was put on the map. The charter was accepted and the company turned over to its stockholders. Hillyer was relieved (with thanks) of his selling task. This was assumed by a commission composed of James Camak and William Williams, who were elected respectively president and secretary-treasurer. The first directors consisted of J. A. Camak, William Dearing, William Williams, James Shannon, William Cunningham, E. L. Newton, Alexander B. Linton, John Nesbitt, William Lumpkin, Henry B. Thompson, John A. Cobb, Absalom James, John Cunningham.

MONROE RAIL-ROAD LINE.

From Augusta Georgia, to Montgomery Alabama.

TRAVELLERS are respectfully informed that a Daily Line of four horse Post Coaches, is running in connection with the GEORGIA, MONROE AND MONTGOMERY RAIL ROADS, between the above mentioned cities. This Line passes from Augusta, through Madison, Eatonton, Macon, Forsyth, Barnesville, Zebulon, Greenville, LaGrange, West Point, Cusseta, and Franklin to Montgomery, 170 miles being over the Georgia, Monroe, and Montgomery Rail Roads.

With regard to the advantages of this Line, it will be sufficient to state that there is forty-five miles less staging than by any other, that the roads are believed to be as good, or better than any other for the same extent through Georgia. Every exertion has been made to render this Line unexceptionable, by procuring competent and civil Drivers, new Coaches and good horses.

TIME.—Leave Augusta daily at 6 o'clock, p. m., and arrive at Montgomery at 8 o'clock on the second evening after their departure, being 50 hours through.

Leave Montgomery at 1 o'clock, p. m. daily, and arrive in time to take the Georgia Rail Road Cars on the second evening.

☞ Passengers wishing to take the Alligator Stages for Florida, pass over this Line to Macon, as this Company have become the proprietors of that portion of the Alligator Line between Madison and Macon, and continue to run a tri-weekly Line between those places in addition to the Daily Line.

FARE—Through passengers from Augusta to Montgomery, $39

" " Augusta to Madison, 5 25

" " Madison to Macon, 6 00

" Macon to Montgomery, 21 00

By existing arrangements with the different Companies, Passengers pay from Augusta to Montgomery, or from Montgomery to Augusta, and thus secure their seats through without any possibility of being thrown out at the different points.

GEO. W ADAMS, *Agent*

Office at Mrs. Reed's Hotel opposite the Montgomery Hall. April 28th, 35-tf

The papers which publish the above advertisement will please alter the time of the departure of the cars from Montgomery from 2, to 1 o'clock.

TO RECOUNT the vicissitudes and obstacles intervening between that 10th of March 1834 and the first annual convention of the stockholders on May 11, 1835 would overstep the limits of this narrative. But one startling—and disconcerting—discovery the commissioners made during that short space of time was that many communities did not want a railroad. Their reasons were many: it would wake up their chickens, disturb their own slumbers, frighten and kill their livestock, bring in suspicious characters. And if popular enthusiasm ran low, financial backing was just as limited. Dearing, appointed to place a 4 percent loan of $1 million maturing in from one to 30 years, got no further than the making in New York of a corporate seal (with a horse's head on it) for use upon the bonds *when* and *if* issued. Furthermore, it was discovered that nothing could be done until the whole project was approved by the War Department.

"And to top all," President Camak confessed to the Federal Government's Colonel Long, who arrived in June 1834, "none of us knows anything whatsoever about building or running a railroad. How can we get anybody who does?"

The colonel suggested that one of their number be sent to the North, where such talent might be available. Interposing no official objections to the railroad, Long then left for Tennessee, where certain influential gentlemen were planning a rail

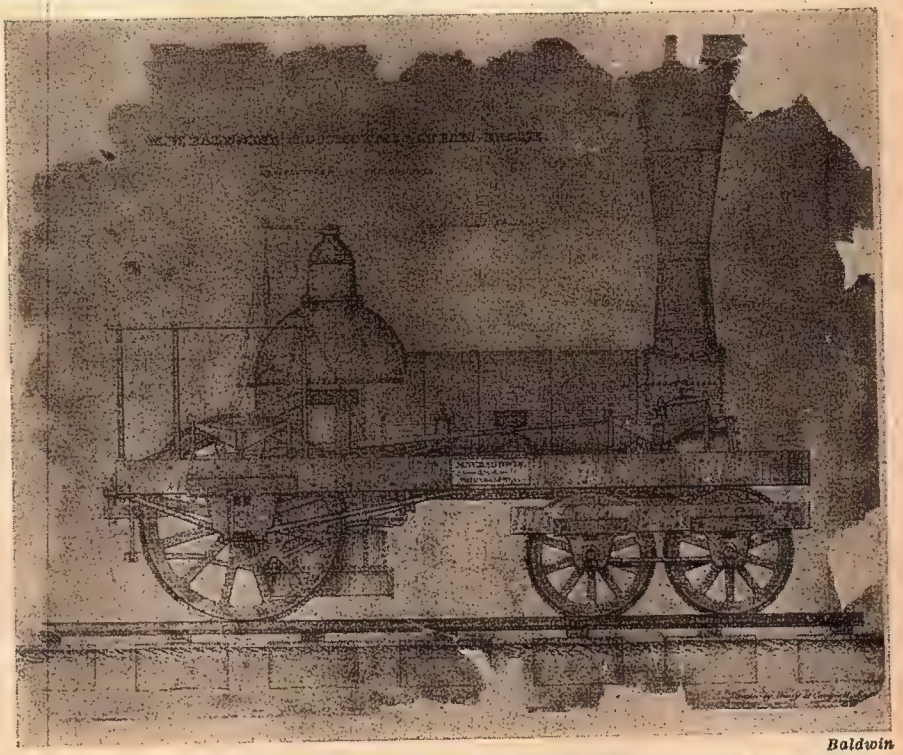
Newspaper advertisement, *left*, heralds the inauguration of through traffic between Augusta, Ga. and Montgomery, Ala.

communication to give that fast-developing region an Atlantic watershed outlet.

Camak having worried himself into an enforced rest, Williams sought and found a chief engineer in Philadelphia. His choice was momentous. Dreams of linking the Atlantic to western waterways were the heritage of J. Edgar Thomson, whose father had been engineer for the Delaware & Chesapeake Canal and who had later transported a schooner of his own building from Erie, Pa. to Delaware. Edgar at 19 had joined the Philadelphia & Columbia Rail Road, forerunner of the Pennsylvania. This enterprise never got beyond the initial construction stage, the state having failed to make the needed appropriation. After spending two years as chief construction engineer of the Camden & Amboy, J. Edgar Thomson went to England, where he mastered the arts of railroad building and of steam locomotion. He had just recently returned to America when at 26 years of age he was hired by Williams.

William Dearing

Thomson reported for work at Athens on November 1, 1834, although he could do nothing until his instruments arrived three weeks later. With Georgia in the midst of another bad winter, Thomson



Baldwin

Popular design in 1836, when Georgia Railroad placed its first order with Baldwin for 7 locomotives, was passenger engine with single pair of drivers

nevertheless made an experimental survey of the Union Road and of the Athens Branch, besides drawing detailed plans and estimates for the first 30 miles out of Augusta—it having been decided to begin at that end. Augusta had meanwhile conveyed to the railroad a site for its terminal.

All this and more was reported to the stockholders at the annual convention held on May 11, 1835, where James Camak was re-elected president and Asbury Hull chosen as secretary. At the meeting it transpired that nearly half a million dollars had been paid in, and that many valuable rights-of-way had been secured.

A special meeting of stockholders, held at Athens on January 12, 1836, accepted a new charter conferring upon the corporation definite banking powers, increasing the capital to $2 million and changing the name to "Georgia Railroad & Banking Company." Thereafter the bank was conducted as a separate department, first in Athens and after 1841 in Augusta. Today it is a wholly-owned subsidiary—the Georgia Railroad Bank & Trust Company.

The preamble to the amended charter was plainly inspired by the far-seeing J. Edgar Thomson:

"Whereas, the people of the West have in contemplation to make a communication between the City of Cincinnati and the Southern Atlantic Coast by means of a Railroad; and whereas the best route for said communication is believed to be through the State of Georgia; and whereas the building of the Georgia Railroad is now in progress, and will be an important link in the line of said communication . . ."

As contemplated in this preamble, by a further Act approved on Christmas Day 1837, the company was given the right to continue its railroad westward "from the town of Madison, in Morgan County, to pass through or near Covington, in the County of Newton, to connect with and join the Railroad, about to be constructed by the State, from the Tennessee line near the Tennessee River, to the southeast bank of the Chattahoochee River." The western third of the Georgia Railroad's mainline was thus projected.

Library of Congress

Water—not panic-driven depositors—rushed the Georgia Railroad Bank this day in '88 when the Savannah River flooded downtown Augusta. Chartered in 1836, bank was a railroad-owned subsidiary

MEANWHILE Thomson was going ahead with the actual construction of the road and the procurement of rolling stock, the affairs of the company having been reported at the stockholders' annual convention of 1836 as in excellent condition. There was a crosstie for every six feet, with two 9-inch "sills" or rails for the tracks, each sill bearing a three-quarter-inch flat bar of iron three and a half inches wide, spiked on its top and doing duty for the

steel rail later in use. Superstructure and trestles were of long leaf yellow pine, then growing in abundance throughout that region. Contractors were required to pile all timber cut on the right-of-way that would square nine inches and above "as directed by the engineer."

Thomson's report showed that the cost would be $5230 a mile—considerably in excess of preliminary estimates. This was because labor and iron prices were higher and "the bars would be heavier" to sustain the weight of "locomotive steam engines," at last decided upon as the motive power. Such engines in turn were to be "heavy, so that with greater friction there would be less slipping."

The chief engineer announced that his friend "Mr. Baldwin, of Philadelphia, a gentleman of established reputation," had been retained to construct seven locomotives, two to be completed by November 1836. Six had been finished and delivered when the stockholders met in May 1838. Outstanding features were: a horizontal boiler, one pair of driving wheels, pilot wheels under cylinder, funnel smokestack adapted to wood burning—altogether more nearly resembling the type of locomotive to become standard for the 19th and early 20th centuries than anything heretofore built. Appropriately, the engines were named *Georgia, Florida, Alabama, Louisiana, Tennessee,* and (out of deference to Thomson) *Pennsylvania.* They were excellent machines and some of them were doing auxiliary service after the Civil War.

Currency began to be tight throughout the South in the fall of 1838, so in order to finance completion and equipment of the road to Union Point with branches to Athens and Madison, 1700 bales of cotton were bought by the company and shipped to New York, where they were sold and the proceeds invested in coin. An additional 1890 bales went to Liverpool. On the foreign exchange this cotton bought 1100 tons of iron and sent $20,000 in specie back to Georgia.

"You gentlemen," Thomson was heard to remark, "have a saying that for solid value there's nothing like 'cotton in Augusta.' Well, for our present purposes, there's nothing quite equal to gold in New York and iron on the way from Liverpool."

His assertion was particularly apt, because most banks (the Georgia Railroad Bank included for a brief interval) had suspended specie payment. In the darkest hour W. & I. Brown of Liverpool shipped Thomson enough iron to assure the completion of the Athens Branch and of the mainline to Madison. More than 87 miles were in operation by the end of 1838. Net income for that year from railroad and bank (not yet segregated) was over $112,000 after deducting expenses and all repairs of road, engines and cars.

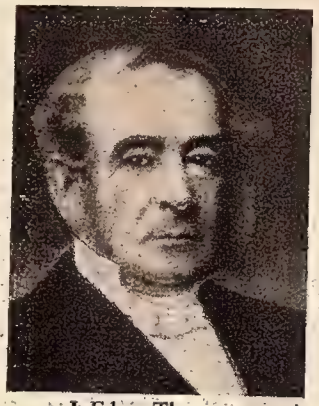
Despite further stringencies and a mysterious "sickly season" for the workmen, during 1839 Thomson managed to push on the work with only brief interruption. The remaining objective was to close up the 65-mile gap between the western railhead and the State Railroad on the hither side of the Chattahoochee—a link which when completed "would make a continuous chain of road between the navigable waters of the Atlantic and the West." Thirteen miles of that link passing the valley of the Alcovy and Yellow rivers was of very difficult construction, but the pioneering, persevering Thomson overcame this final obstacle.

The railhead was still at Madison, 104 miles west of Augusta, when the State (Western & Atlantic) Road, as yet engineless, reached its designated terminus near White Hall Tavern, six miles west of the Chattahoochee River. Thomson, incidently, had been instructed by his directors to extend the Georgia Railroad to Whitehall, as the two railroads were in agreement on a meeting place. There was, indeed, a fine comity of interest between the two enterprises, as events proved.

"The Western & Atlantic has got to have an engine," Thomson declared. "And since it possesses no railroad connection and cannot use waterways as we did, I propose, sir, we send one of ours."

"And how do you expect to deliver our engine to them?" countered his new chief executive, Judge John P. King of Augusta, whose election as president of the Georgia Railroad & Banking Company in 1841 betrayed a shifting of corporate gravity from Athens to the larger city.

"By mule, Judge," the engineer calmly replied.



J. Edgar Thomson

Thomson was as good as his word. That summer a party of notables which included, besides Judge King and his directors, state officials and members of the Legislature, sat in a brand new coach one morning, as it pulled out of Union Point behind the late model locomotive tendered to the Western & Atlantic. Thomson paced the length of the car, pausing here and there, answering questions.

"The Western & Atlantic people," he summed up, "call their track stop, which likewise will be the end of our line, 'Terminus'—but I see it more as a beginning."

"Beginning of what?" retorted one director. "You don't think there'll ever be a town there, do you?"

"So definitely, sir, that at your next meeting I'm going to ask you gentlemen for a brick depot at Terminus, although our own tracks are still sixty miles to the east."

From the Georgia's railhead at Madison the party journeyed by carriage while the locomotive followed, mule-drawn over dusty roads. The partially dismantled engine was mounted upon a specially built wagon of heavy construction. Prayers went up that no untimely rain would render the road impassable.

Everybody felt that the Georgia Railroad had indeed joined east and west when the funneled locomotive was creakingly hauled into Terminus behind a fourth relay of nearly exhausted mules. After much effort she was safely seated upon the Western & Atlantic tracks. Speeches were made and refreshments served while a brisk flame was being nurtured in the firebox preparatory to the engine's first run.

All went well until the time came for starting. Blue smoke redolent of freshly cut wood poured from the stack; vapor exuded from many a seam. At a given signal the engineer loosed an unearthly blast from the whistle. The engine shuddered, coughed, hissed, sweated prodigiously—but did not stir.

Thrice was the effort repeated without avail. The bystanders, silent at first, began to murmur. Then an old one-gallus strode forward, spat amberly, jutted forth his beard and yelled:

"Open the petcock and let the steam out!"

Not until the mules were re-hitched and had eased the engine off dead center did the first train pull out of Terminus, shortly to be called Marthasville.

THE ADVENTURES of the Georgia Railroad locomotive and her attendant entourage did not end with the engine's being set in motion on Western & Atlantic track. The State Road people had hurried completion of their 25-mile trackage from Terminus northwest to Marietta, across the Chattahoochee River, so as to receive the engine and party in a town suited for proper entertainment. However, what with washing and polishing the engine, to say nothing of her refractory behavior, sundown found the celebrities still at Terminus. It was decided then to spend the night there in the shanties built for the railroad hands and to set out next day.

With William F. Adair and William Hardman taking turns at the throttle, and with Edward Boulineau relieving William Coons as fireman, the locomotive and one-

car train started bright and early along the State Road's newly laid track. When the Chattahoochee River was reached, Richard Peters, whom Thomson had brought down from Philadelphia and installed as superintendent, called a halt for inspection. Thomson and Peters walked ahead with Engineer Hardman and found that the track builders in their hurry had neglected to lay one of the rails. The three men summoned the fireman to aid in its placing.

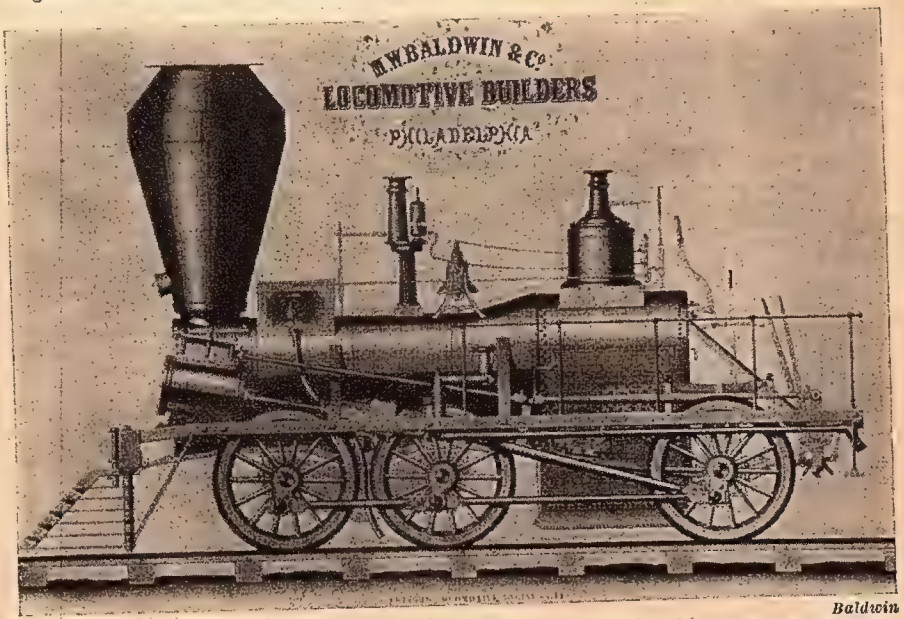
Thereat the passengers took fright and left the coach. They let the engine crew with Thomson and Peters take the locomotive and empty car across the bridge, while they followed on foot.

"If we had tried to proceed last night," said Hardman, "we'd have gone into the river."

Cost of the Georgia Railroad's 65-mile mainline extension from Madison to the Western & Atlantic terminus had been estimated by Thomson at about four times as much per mile as the section west of Augusta. Such increase was due to a far more difficult terrain, a further wage rise in the interim and, most significantly, the use of iron T rail weighing 46 pounds per yard. The required sum—$1.2 million—was deemed by Thomson a trifling amount "as compared with the immense benefits" that would accrue to stockholders and to the country traversed. As a climax, he triumphantly pointed out that completion of this short link would give the Georgia carrier, in connection with the Western & Atlantic, a continuous line 302 miles in length "entirely free of inclined planes."

Because the charter of the Georgia Railroad forbade stockholdings by foreigners, Thomson could not, like his brethren of the Western & Atlantic, look to bond-buying London bankers for funds wherewith to finish his road. Yet with the shrewd cooperation of Judge King plus the help of Charleston and Augusta banks, the chief engineer was able on July 26, 1846 to report: "The road is now done." The total cost including equipment amounted to $3,369,856.42.

The link had been closed connecting



Baldwin

Accent on art. No cab to boast about, this Georgia freight locomotive was delivered in the late 1830s complete to oil-painted torchbearer on sandbox. Baldwin listed her as "plan D"

GEORGIA RAILROAD

This Road was first opened in 1845. Its length is 171 miles. Cost (inclusive of branches), $3,228,594.92; amount invested $2,289,199.92. Number of shares, 22,892. Par value of each share, $100. Dividends payable 1st October and 1st April. Kind of rail used, Flat Bar between Augusta and Union Point, and "T" and Bridge to Atlanta.

Mls.	Augusta –to– Atlanta	Mail 1st Train	Sunday Time Mail 1st Train	FARES 1st Class
	Leaves—	P.M.	P.M.	
	AUGUSTA	8 00	8 00	.....
10	Bell Air	8 50	8 50	.50
21	Berzelia	9 40	9 40	$1.00
29	Dearing	10 15	10 15	1.50
38	Thomson	10 55	10 55	1.90
47	Camak	11 35	11 35	2.30
		A.M.	A.M.	
57	Cumming	12 15	12 15	2.80
65	Crawfordville	12 50	12 50	3.25
76	(–) Union Point	1 45	1 45	3.80
83	Greensborough	2 15	2 15	4.25
96	Buckhead	3 10	3 10	5.00
104	Madison	3 30	3 30	5.25
112	Rutledge	4 00	4 00	5.70
120	Social Circle	4 25	4 25	6.00
130	Covington	5 05	5 05	6.50
141	Conyers	5 40	5 40	7.00
147	Lithonia	6 05	6 05	7.00
155	Stone Mountain	6 35	6 35	7.00
165	Decatur	7 10	7 10	7.00
171	ATLANTA—(Arr.)	7 30	7 30	7.00

Mls.	Atlanta –to– Augusta	Mail	Mail	
	Leaves—	P.M.	P.M.	
	ATLANTA	4 00	4 00	.....
6	Decatur	4 20	4 20	.25
16	Stone Mountain	4 50	4 50	.70
24	Lithonia	5 20	5 20	$1.15
30	Conyers	5 40	5 40	1.50
41	Covington	6 10	6 10	2.00
51	Social Circle	6 45	6 45	2.50
59	Rutledge	7 10	7 10	2.80
67	Madison	7 40	7 40	3.30
75	Buckhead	8 05	8 05	3.70
88	Greensborough	8 55	8 55	4.30
95	(–) Union Point	9 30	9 30	4.70
106	Crawfordville	10 20	10 20	5.25
114	Cumming	10 55	10 55	5.65
124	Camak	11 35	11 35	6.16
		A.M.	A.M.	
133	Thomson	12 25	12 25	6.60
142	Dearing	1 10	1 10	7.00
150	Berzelia	1 45	1 45	7.00
161	Bell Air	2 30	2 30	7.00
171	AUGUSTA–(Arr.)	3 15	3 15	7.00

TAKE NOTICE

Trains stop at Stations marked (–) for refreshments.

Freight trains leave Augusta at 8 a.m. daily, and arrive at Atlanta at 5 p.m. the following day. Leave Atlanta daily at 6 a.m., and arrive at Augusta at 3½ p.m. the following day.

Children under 12 years of age, and Negroes, taken on this Road at half price.

A road branches off at Camak to Warrenton—distance 4 miles—fare 20 cents.

A road branches off from Union Point to Athens—distance 39 miles—fare $1.95.

Travelers stopping at Augusta, (Ga.) will find an excellent accommodation, a good table, and attentive servants, at THE UNITED STATES HOTEL, kept by Daniel Mixer.

Luggage allowed each Passenger, 112 pounds.

Freight Rates—Iron, 15¢ per 100 lbs.; Lumber, $1 per M for 10 miles, & 25¢ for every additional 10 miles; Corn & Grain 8¢ per bushel; heavy merchandise, such as Sugar, Salt and Butter, 30¢ per 100; Dry Goods 60¢ per 100; Light and bulky Merchandise 10¢ per foot, thro.

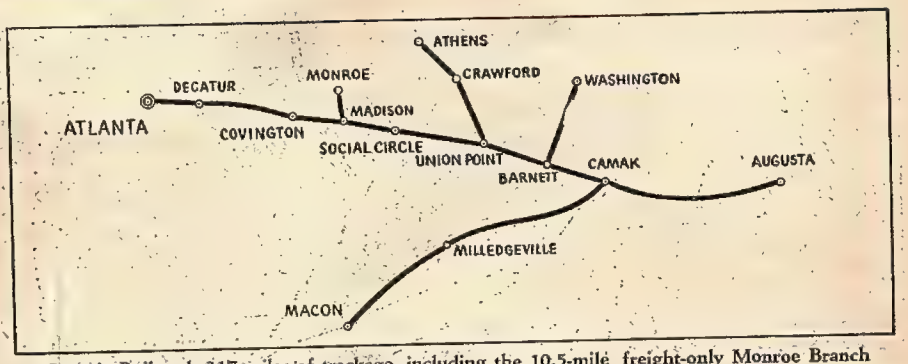
No parcels taken for less than 25 cents.

Charge for Horses & Carriages—Horses $8 each, thro; 2-wheeled Carriages $6; 4-wheeled ditto $10, thro.

Charges for Special Engine and one Car, $75.

Stage Lines—From Cumming to Abbeville, (S.C.), via Washington (Ga.), fare $2; from Warrenton to Macon, via Milledgeville & Sparta, daily; fare from Warrenton to Sparta $2, and from Warrenton to Milledgeville $3. From Athens to Gainesville & Dahlonega.

Georgia timetable issued in 1845 advertised regular trains for the mainline only. Served by stage lines was Athens, city that organized and paid for the road



Georgia Railroad: 317 miles of trackage, including the 10.5-mile, freight-only Monroe Branch

Augusta with the Western & Atlantic, and the Athens Branch was in full operation. As late as 1844 passenger service on that branch had been horse-drawn for five nights a week; on the sixth night the passenger coach was attached to a freight train drawn by a little locomotive called the *Firefly*.

On September 15, 1845, another Georgia Railroad engine had entered Marthasville, formerly Terminus. This one, unlike her predecessor, was not hauled by mules. She arrived under full steam over iron rails, her whistle screaming, her highly polished bell giving forth a triumphant clangor. Behind the steamer rolled a train of freshly painted cars, packed with prominent citizens and large stockholders from various localities, together with company officials and the ubiquitous chief engineer. Train Conductor George Washington Adair, resplendent in new uniform, claimed the honor of handing Judge King the spike with which that gentleman united the two railroads. The dream of J. Edgar Thomson had come true.

All Marthasville and the surrounding region—perhaps a thousand souls—had turned out for the occasion. Speeches were made. Toasts were drunk. As night came on the general jollification gathered headway; folks wandered around in an alcoholic daze. One well-known person, while so engaged, fell into the town well and had to be fished out by the light of pine flares.

The now sobered victim was helped to his feet and stood with the water dripping from his drenched attire while the crowd looked on. George Adair, who was destined to forsake the conductor's bell-cord for the real estate auctioneer's gavel, broke the silence:

"Stand a little to the left, Colonel, and you'll drain into the Atlantic Ocean instead of the Gulf of Mexico."

When the laughter had subsided Adair, whose wit never outpaced his kindly disposition, fetched the Colonel a generous drink and in a powerful baritone led off with the Georgia Railroad ditty.

"Black and duster
Goin' to Augusta;
Stage was wuss, but this train's wuster.
Covington, Union Point, Camak,
Tootin' and snortin' there and back.
Some fine day the steam'll bust her—
Black and duster
Goin' to Augusta!"

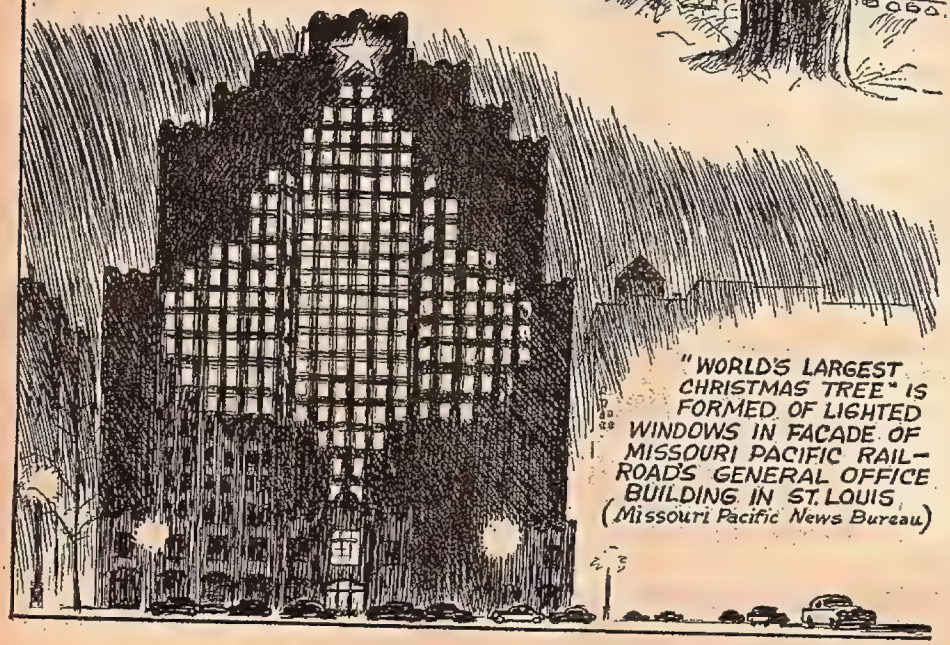
His task completed, J. Edgar Thomson went back to Philadelphia in 1847 and built the Pennsylvania Railroad, becoming its third president. Later he helped Andrew Carnegie establish a steel mill which, as the Edgar Thomson Steel Works, is the nucleus of the United States Steel Corporation. The Georgia and Pennsylvania railroads, as well as U.S. Steel, thus trace their ancestry to the same progenitor. In addition, as godfather to Marthasville, he coined for her the name she now so proudly flaunts—Atlanta.

ALONG THE IRON PIKE

by JOE EASLEY

OLDTIMERS STILL TALK ABOUT THE GRAIN BLOCKADE AT FISHER, MINN., CAUSED WHEN THE BOOM OF A PASSING GREAT NORTHERN WRECKING CRANE WORKED FREE AND PUNCTURED AN ELEVATOR, FLOODING THE MAIN WITH WHEAT. TRAFFIC WAS BLOCKED FOR HALF A DAY

(Arch Billing, 919 N. Olive St. Anaheim, Calif.)

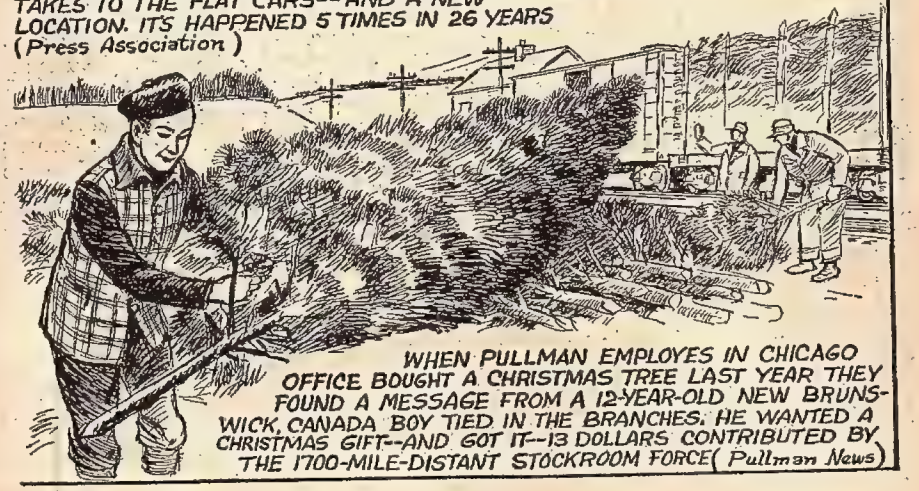


"WORLD'S LARGEST CHRISTMAS TREE" IS FORMED OF LIGHTED WINDOWS IN FACADE OF MISSOURI PACIFIC RAILROAD'S GENERAL OFFICE BUILDING IN ST. LOUIS

(Missouri Pacific News Bureau)

RETIRED BRITISH RAILWAY'S STATIONMASTER R.W. GREENMAN NOW LIVES IN A CLERESTORY COACH WHICH ONCE ROLLED PAST HIS WORKING AND LIVING QUARTERS. PAINTED CREAM AND BLACK IT CONTAINS 6 ROOMS; OVERLOOKS CHEDDAR LAKE, AT AXBRIDGE (British Railways)

MOVING DAY. WHENEVER THE TIMBER PLAYS OUT THE LOGGING TOWN OF SHEVLIN, ORE. (600 POPULATION) TAKES TO THE FLAT CARS--AND A NEW LOCATION. IT'S HAPPENED 5 TIMES IN 26 YEARS (Press Association)



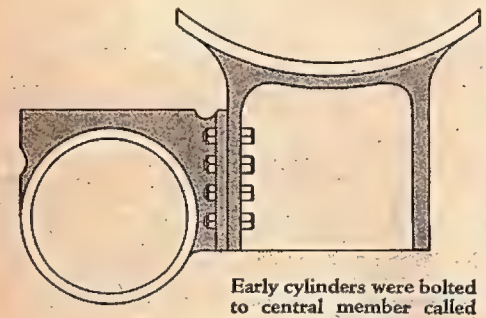
WHEN PULLMAN EMPLOYES IN CHICAGO OFFICE BOUGHT A CHRISTMAS TREE LAST YEAR THEY FOUND A MESSAGE FROM A 12-YEAR-OLD NEW BRUNSWICK, CANADA BOY TIED IN THE BRANCHES. HE WANTED A CHRISTMAS GIFT--AND GOT IT--13 DOLLARS CONTRIBUTED BY THE 1700-MILE-DISTANT STOCKROOM FORCE (Pullman News)

Light of the Lantern

Cylinders

TO LOCOMOTIVE shop forces the term "cylinder" has a special significance. Not only is it the largest single casting of the entire engine rough,* it is a complicated and well-machined piece of steel involving an intricate arrangement of cavities for the piston, piston valves and the passage of steam. Few members put a greater tax upon the craftsmanship and resourcefulness of the molder, and without his know-how the development of the locomotive to its present form would have been impossible.

In very early practice, cylinders made of cast iron were shaped largely by chisel and file. Matthias Baldwin, for example, used a chisel imbedded in a rotating wooden arm to bore the cylinders for *Old Ironsides*. Milling machines and lathes eventually relieved the machinist of slow and tedious hand workmanship and their effectiveness—together with advancements



Early cylinders were bolted to central member called a "saddle"

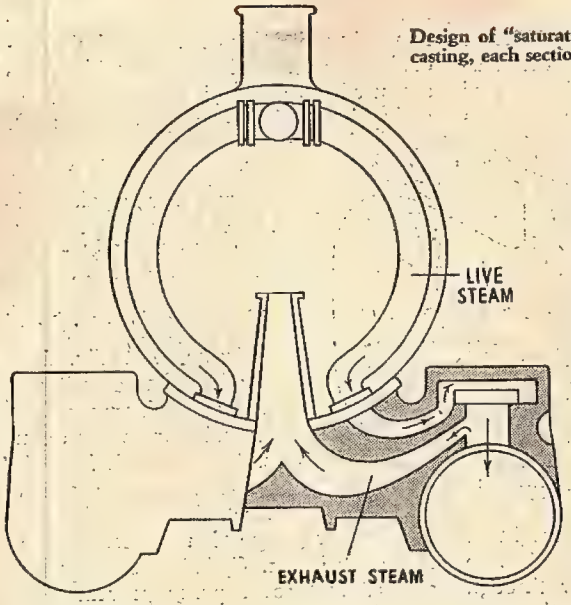
in metallurgy—produced the steel cylinder, which combined greater strength with a reduction in weight. Very recently the fashioning of cylinders from steel plate, welded together or "built up" into a cylinder assembly, has in many instances taken the construction work out of the foundry and placed it in the hands of the boilermaker.

Regardless of the method of fabrication the general appearance of the cylinder has remained very much the same for nearly a century. To find the alterations we must look behind the outer housing. In early days the mechanical design followed the pattern illustrated in our first drawing. Examination shows that the assembly was composed of three parts: the two cylinders and a connecting central member, called a "saddle," which supported the smokebox.

Although this construction was used for many years, it was destined to go out when trains grew heavy and pressures rose. For the engines of that era were equipped with Stephenson gear and the common "hat" or slide valves. Steam was admitted by internal steam pipes which meant that the saddle had to house cavities for both admission and exhaust. At the cylinder joint both surfaces were flat and the only way of sealing the union was by means of a soft metal gasket. While the cylinders hugged the saddle securely the leakage could be kept to a minimum, but the stress set up by the steam working in opposing directions upon the cylinders and frame tended to break the bond quickly with resulting loss of power, steam-obscured vision for the enginemen, and eventual failure of the bolts connecting the members. This condition was, of course, augmented by the rapid reversal of forces in the cylinder itself.

IN DUE TIME mechanical departments met the problems with the aid of the foundries. New molds were devised to produce a two-piece casting, each section

*In the case of locomotives having cast engine beds, the cylinders are an integral part of the unit.

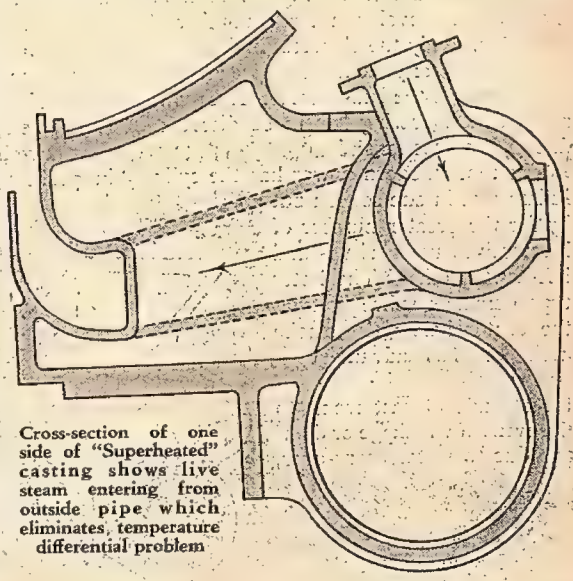


Design of "saturated steam" cylinder featured 2-piece casting, each section incorporating half of the cylinder saddle

of which incorporated half of the cylinder saddle. For many years this type was known as the "saturated steam cylinder" identified by a central, bolted union design, and it proved very successful until the advent of superheated steam, when still another change came. Before comparing the second and third types, it should be mentioned that while the latter represents a great improvement its use cannot be considered mandatory for even today many superheated locomotives have "saturated" cylinders.

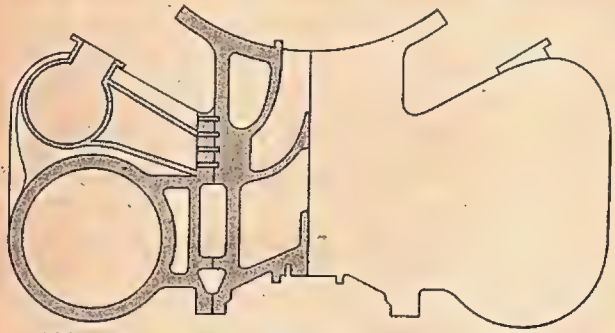
The difference in the two appears in the location of the live-steam passages to the valve chamber. In the older type these pipes enter from the inside as shown in our second drawing. The live-steam cavity is at the center with the exhaust cavities at the ends, the walls of the two being adjacent. Now when the engine is working hard these walls naturally heat up, and because there is a large variation between the temperatures of the live and exhaust steam the metal is subjected to unequal heat stresses. In the case of an engine using saturated steam, the problem is not too acute; but with superheat, at temperatures of around 700 degrees F., cracks develop in inaccessible sections of the saddle necessitating expensive replacements.

This is the problem that is eliminated by the newer assemblies, through the use of outside admission pipes. The cylinder castings have no live-steam channels. Instead, admission is obtained through flange joints



Cross-section of one side of "Superheated" casting shows live steam entering from outside pipe which eliminates temperature differential problem

directly at the center of each valve chamber, where the steam pipes come through the smoke arch on the outside. As all piston valves today are of the inside admission type the setup is ideal. Steam at boiler pressure is right on hand when needed; no longer does it have to reverse its direction of flow through pipes and cavities as it did with the older construction.



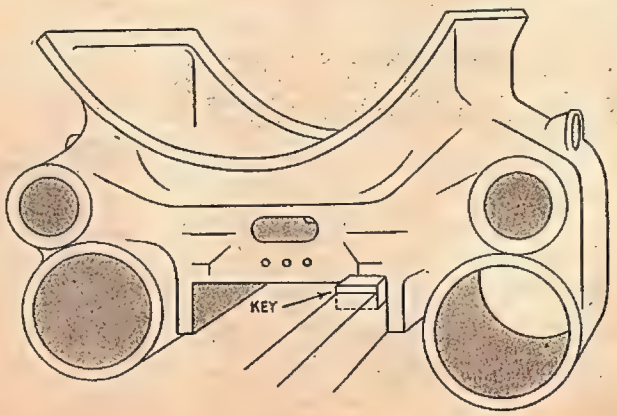
Although appearing solid from the outside, cylinder casting is mass of ribs, reinforcing steam passages and chambers

THE CASTING of a set of cylinders is no easy matter. Unlike most foundry forms which are made in two sections, these blocks involve a large number of segments. Only the cleverest molder with many years' experience can prepare the forms and set the heavy cores. Even then many a new casting has to be discarded due to imperfections.

The most modern power has the cylinders cast in one section but by far the greater number of locomotives use a right- and left-hand section. The latter type demands splice bolts at the center below the smoke arch but has advantages—particularly in the case of those made of cast iron. In the event of wreckage or damage due to water carry-over, it is far cheaper to renew a single section rather than a huge single unit monopolizing the front end. When steel or alloys are used (these have the advantage of giving longer life), repairs can be made by means of autogeneous welding.

Steam passages alone do not account for the complexity of the basic cylinder casting. For while strength is of the greatest importance, weight, too, must be held to a minimum. Actually, then, the casting is but a shell with numerous reinforcing ribs at the cylinder and valve chambers. To protect it from the elements the entire outside surface of the casting has a heavy coating of asbestos, covered by a sleek jacket. Cylinder heads are also encased and cover plates prevent snow from being thrown up into the cavity between the engine frames. Actually the only basic part left exposed is the shell below the smoke arch.

When the cylinders are not cast integral with the engine bed, it is still the practice to bolt them to the frames and to each other, but the shear stress has been eliminated by the application of a key. The bolts themselves fit the holes perfectly, being reamed or machined. After they have been tightened the key is placed in position, most generally at the front



One-piece casting locked in position by key, dropped into frame

end. At the rear the cylinder is set against a lug in the frame and the key forces the cylinder unit so firmly against this lug that frame and casting are for all practical purposes a single unit. Rarely do they ever loosen sufficiently to give trouble.

Valves and pistons are never allowed to wear directly upon the cylinder casting. Instead, bushings are pressed snugly into each chamber and these are replaced with little effort whenever necessary.

Setting a cylinder to a frame is an undertaking that requires the greatest of care. Obviously its bores and those of the valve chambers must be parallel to each other and to the line of the frame. Unless this is the case there will be angular strains resulting in hot bearings and other damage.

In recent years, as we indicated early in this article, there has been a new development in cylinder construction, the fabricated or welded assembly. Here the cylinders and valve chambers are made of rolled boiler steel and butt welded. To these barrels are added numerous gussets and plates creating the visual impression of a cast job. The exhaust cavities are made up of channel iron to form a flat pipe and set in such a manner that they convey steam from the valves to the exhaust base and so out of the stack. The welds are made electrically and the process saves hours of labor, eliminates costly foundry procedure and equipment. Best of all the finished product is sturdy enough to outlast the engine itself.

INFORMATION BOOTH

Each month the Lantern Department prints answers to rail questions of general interest, submitted by our readers. We do not send replies by mail.

1

FURNISH *details concerning Canadian Pacific's conversion of steam locomotives from coal- to oil-burning power.*

In order to boost Alberta's growing oil industry, the CPR launched an extensive switchover from coal to oil last year. Conversion was started on 100 locomotives used between Calgary and Edmonton and Calgary and Vancouver. Just six months after this program began, Engine 2833 inaugurated oil-burning steam locomotive service on the 831.6-mile run between Winnipeg and Calgary, pulling the transcontinental *Dominion* westbound. A 2800-class *Royal Hudson,* No. 2833 was revamped at the Weston shops, Winnipeg, and is the first of 16 to be so treated.

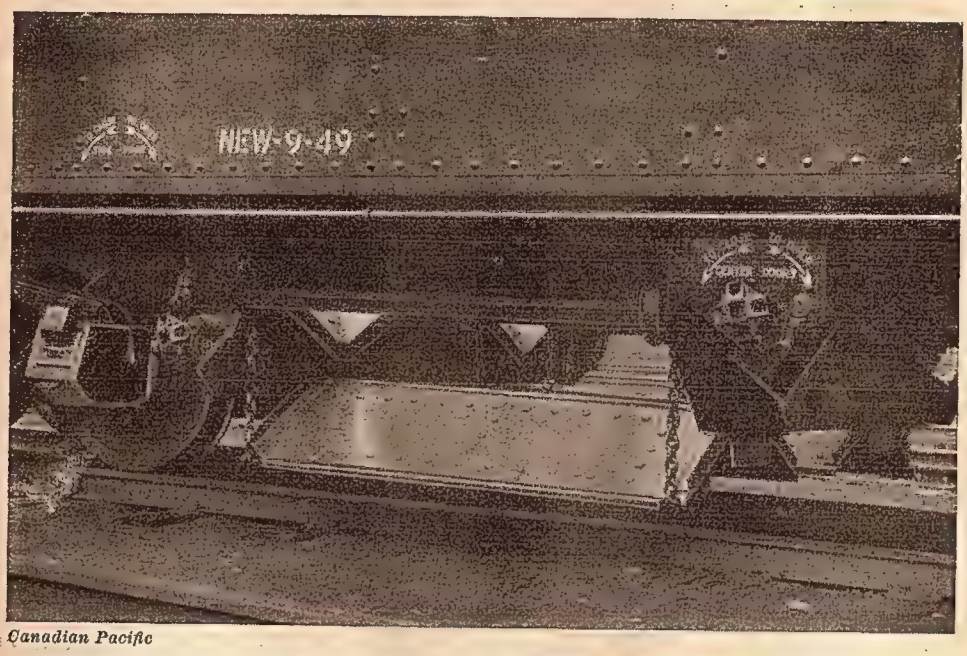
Fifteen locomotives of this series will undergo similar operations by February, making all mainline passenger power oil-burning on CPR's Winnipeg-Calgary run. Oil storage facilities will be located at Moose Jaw and the terminal points. The engine in this second conversion is a famous one. Ever since No. 2850, painted royal blue and silver, hauled the *Royal Train* from Quebec to Vancouver in 1939 all 2800s have carried a crown on the running-board front by royal permission.

2

I READ *recently that the RPO schedule between Chicago and San Francisco had been greatly slashed. How much time is saved, and how was the reduction managed?*

On October 1st the *City of San Francisco* inaugurated the new mail service to which you refer. Delivery of seven streamlined RPO cars to the Chicago & North Western, Union Pacific and Southern Pacific, which roads jointly operate the streamliner, made this possible. Previously, mail carried on the *City of San Francisco* traveled under the post office designation "closed pouch" and was not sorted until arrival.

Saving in time is gained by picking up, sorting and distributing mail enroute.



Canadian Pacific

New CPR hopper cars have four longitudinal dump doors which can discharge to the center and sides simultaneously or singly. Worm-and-gear assembly provides uniform control

Mail for San Francisco and Chicago arrives sorted by street and zone number and ready for immediate distribution. A crew of six to eight postal employes mans each car. Car interiors are divided into a 60-foot-long working space for sorting mail and a good-sized area for storage. In addition, an electric stove, refrigerated drinking water, clothing compartment and washroom are provided for the postal crew.

3

HOW *much scrap is provided by a steam locomotive?*

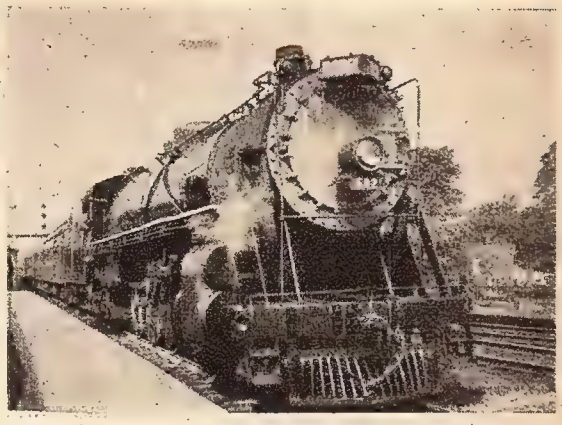
An engine weighing 250,000 pounds without tender gives about 225,000 pounds in salvage, including heavy melting scrap for steel-mill furnaces and cast-iron and nonferrous scrap. The breaking-up process is systematized, with wooden parts of the cab being burned, boilers stripped of sheet iron and asbestos, and the locomotive then cut up into pieces.

Before an engine is sold for scrap, the railroad usually strips it of trimmings. Bells, gages, valves, lubricators, signals and anything else that may have future use in the repairing of other locomotives are saved. It takes more than 80,000 man-hours to make a locomotive, but a scrap yard can break one up in two or three days.

4

KINDLY *supply data and a photograph of Canadian Pacific's new longitudinal hopper car.*

The CPR is placing in service 200 new longitudinal hoppers, numbered 360000 to 360199, which measure 41 feet, 8 inches in length over the striking castings. Cubic capacity is 2775 cubic feet; capacity, 159,000; load limit, 159,000; and light weight, 50,900 pounds. The outstanding feature of the car is that the hopper doors open longitudinally, having a clear opening of 17 inches by 5 feet, 2 inches. The doors discharge to the center and sides simultaneously or singly, with the side doors



Experiment in stacks is Central of Vermont 602, whose smoke deflectors were removed in June '49 and stack extended. *Right,* No. 602 head-ends southbound *Ambassador.* She has since been assigned another run

Lorne Perry, St. Lambert, Quebec

being operated from their respective sides while the center doors can be operated from either side of the car. All doors are controlled by a worm-and-gear mechanism which imparts uniform motion, thereby allowing them to be adjusted by the operator to give a steady discharge of lading. There are two doors on each side of the car.

5

HOW HAS *the percentage of women working in the railroad industry held up since the end of the war? Are there any types of work in which women outnumber men?*

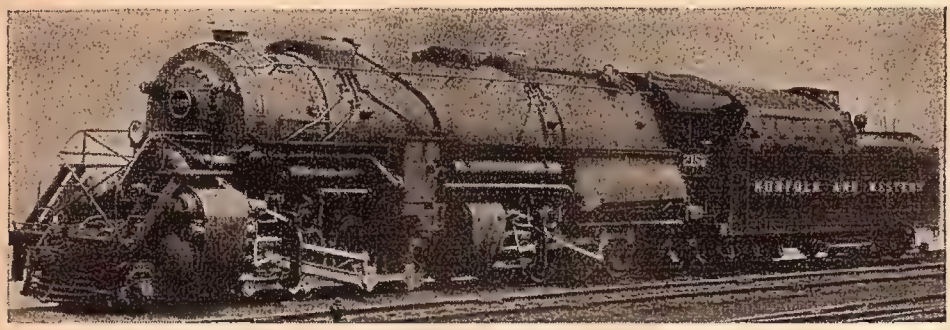
ICC statistics for the postwar years show that women are retiring from railroading in easy stages. In 1947 there were 68,486 women employed, 5.05 percent of the industry's total. One year later this had fallen off to 64,931, and the percentage was 4.83.

As might be expected the greatest number of women work in the "professional, clerical and general work" class—52,586. As to the exact branches where women outnumber male employes, the ICC breakdown lists the following categories and percentages:

Mechanical device operators (office) 75.52
Foremen (laundry) and laundry workers 72.29

J. B. Shores

Fairbanks-Morse road switcher for the Akron, Canton & Youngstown. Use of opposed cylinders accounts for the cab-high hood—also for 2000 horsepower in a comparatively short chassis



Norfolk & Western's Class Y-6 has externally located combination feedwater-heater unit

Stenographers and typists (B)....70.81
Switchboard operators and office assistants 70.50
Stenographers and secretaries "A" 55.20

With these five exceptions railroading is strictly speaking a man's world.

6

PLEASE *give specifications for Norfolk & Western's most recent 2-6-6-4s, 2-8-8-2s and 4-8-4s.*

2-6-6-4s: Class A
Numbers: 1200-1222
Cylinders: 24x30 inches
Drivers: 70 inches
Pressure: 300 pounds
Engine Weight: 430,100 pounds
Tractive Effort: 104,500 pounds
2-8-8-2s: Class Y6, Y6a and Y6b
Numbers: 2120-2187
Cylinders: 25&39x32 inches
Drivers: 57 inches
Pressure: 300 pounds
Engine Weight: 582,900 pounds
Tractive Effort: 152,206 (simple)
126,836 (compound)
4-8-4s: J Class
Numbers: 600-610
Cylinders: 27x32 inches
Drivers: 70 inches
Pressure: 275 pounds
Engine Weight: 494,000 pounds
Tractive Effort: 73,300 pounds

While the weight of N&W's 4-8-4s is exceeded by *Northern*-type engines on other roads, the Js—due to relatively low driver diameter—develop the greatest tractive effort of any 4-8-4s. Actually this low-driver diameter does not affect the smooth-running qualities of these locomotives, which are reported to have achieved speeds of 100 miles per hour without undue vibration or dynamic augment.

7

HAVE *you any records of a McKeen gas car operating out of Omaha as recently as 1941 on the Union Pacific?*

A McKeen car in 1941, yes; but will our reader settle for Denver instead of Omaha. Union Pacific M-18, reputed to have been built in 1906, was photographed as late as 1942-'43 in Denver Union Station, at which time it was in daily local service. This is the latest record we have of it.

8

TAKING *into account all the boxcars I see on the highways, I'm beginning to wonder how the railroads make any money on freight. Could you publish the figure on revenue freight carloadings for 1949? How does this compare with previous years?*

Unfortunately the figure for 1949 has not yet been issued. Instead, here's the last year on record: 1948 with 42,833,902 carloads. While this is more than 1½ million below the carloadings for 1947, the stepup in freight rates should more than compensate the railroads for any decrease. Actually only in 2 of the past 30

years has this total been exceeded—in 1944 and '47. 1947 holds undisputed title with 44,502,188 loads.

9

WHO BUILT *the world's first tandem-compound locomotive? Are there any records in existence to give some idea of how successfully she ran?*

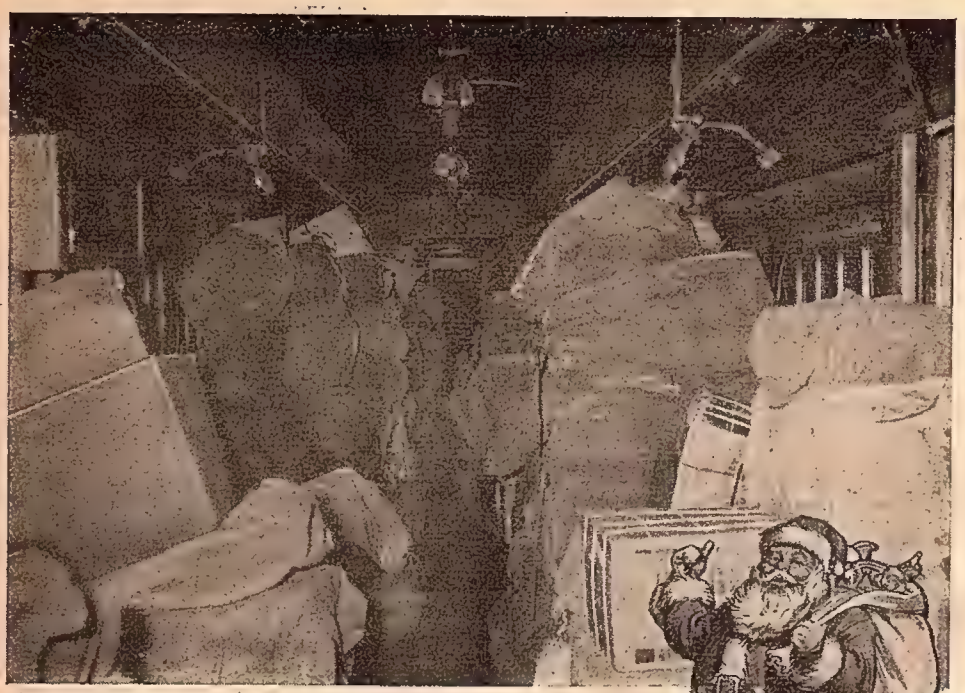
Present evidence seems to establish the fact that the first tandem-compound engine was built here in America in the Shephard Ironworks of New Jersey. The event took place late in 1868, and the engine in question was a 4-4-0 outshopped by Boston's Hinkley & Drury 17 years earlier. Converted for the Erie Railroad under plans prepared by Shephard Manager H. O. Perry—and based upon a patent issued to John Lay in 1867—No. 122 was stripped of her cylinders and equipped with four high- and low-pressure replacements. The former were 11½ inches in diameter, the latter 24 inches.

This was the first compound locomotive constructed in America. Rotary valves were connected to the cylinders, and these were actuated by rods on each side from the rocking shaft of the Stephenson valve gear. No. 122 is known to have seen service for several years as a compound, but she was never a howling success. Eventually she was retired, and the next time America heard of the compound locomotive it was an import based upon a practical design by Anatole Mallet.

In the past some historians have given credit to England for the first compound locomotive. In a recent, most informative publication on compounds, *(Tandem Compound Locomotives* by P. M. Kalla-Bishop, Kalla-Bishop Books, 4 Temple Fortune Ct., London N.W. 11, England; $1.25 or $1.75 cloth-bound), the British bow to their fellow engineers in America as deserving of this honor. The basis for the early claim fell upon two "continuous expansion" locomotives, which as early as 1851 were running on the Eastern Counties Railway in England. Modern authorities seem to agree that these engines were not true compounds at all.

Railroad Photo Service

Last rebuilt *Pacific* (now *Hudson*) to go into C&O passenger service leaves Russell Ky. with *Fast Flying Virginian*



Those Old Familiar Signs

By CHARLES H. WILSON

CHRISTMAS 1940 was still five days off but the little express office at Chadron, Neb. was just about buried under an avalanche of delivery sheets, phone calls, fruit baskets, phone calls, patrons, and—the phone was ringing again. Answering it, I heard the voice of one of our regular shippers:

"Will the train be late into Omaha on Christmas Day?"

Chadron, on the Black Hills Division of the Chicago & North Western, was experiencing some typical Christmas weather. I assured the lady I really couldn't predict such a thing five days in advance, adding that a late train would be no novelty at Omaha. It seemed that she had a perishable shipment for delivery on Christmas not later than ten o'clock. On-time arrival for C&NW No. 12 at Omaha was around nine. I advised her to send her package to arrive there one day before Christmas.

This happened before we entered World War II, but I have always wished that I had been able to tell her exactly when that train would reach Omaha. I could have cleaned up on a few bets.

The lady's request was hardly typical of the usual "White Christmas" anxiety, but it will serve as an example. Sometimes they just say, "I know Christmas is day after tomorrow and the railroads are snowbound, but I've just found a nice

Montana souvenir for Uncle Joe in Alabama and I want him to have it Christmas morning."

If express and postal employes are sometimes gruff, please let me apologize right now for everyone concerned. Maybe it's a case of familiarity breeding contempt. Those signs you ask us to make predictions on are the same every year.

The Christmas Rush is the one period for which railroads, express offices and postal employes spend most of the year in preparation. Trains handling one and two baggage cars per trip suddenly blossom forth with five to 15 head-end cars. The assorting is normally done enroute, but at

Santa ships by rail. Piled ceiling high in Burlington's storage mail cars, *left* and *right*, and in Seattle-Kansas City express car, *below*, are thousands of greetings and gifts—Christmas cheer for recipients, an annual headache for expressmen

Photos by the author

Christmas the work becomes so heavy that most of this work must be done when the cars are loaded. This in no way lessens the strain on train baggagemen or messengers. For stations that normally have nothing to ship are suddenly sending mail and express by the truckload.

Cars and trains are filled to capacity at the terminals. Stowing the pickup enroute becomes a major problem. Narrow aisles in the long cars make progress from one car to another slow. Yet the average two- or three-man baggage crew must manage to be in four or five different cars at once at every station or literally be buried beneath unassorted mail and express.

As an illustration we'll take CB&Q No. 42 eastbound from Billings to Kansas City. The standard Christmas makeup of 42 behind the engine is (1) Billings-Kansas City express (sealed at Billings); (2) Billings-Lincoln, Neb. storage mail

(sealed at Billings); (3) Seattle, Wash.-Council Bluffs, Ia. storage mail (worked enroute); (4) Billings-Omaha, Neb. storage mail (worked enroute); (5) Seattle-Kansas City storage mail (worked enroute); (6) Billings-Denver mail, baggage and express (worked enroute); (7) Seattle-Kansas City express (worked enroute); and (8) Billings-Kansas City combination baggage and RPO car (worked enroute).

Let's follow a mythical parcel from Yakima, Wash. to the Christmas tree in Fort Smith, Ark.: Aunt Hattie has bought a nice game for Tommie. A sensible shipper, she encloses it with one of her special fruit cakes in a securely wrapped package. She has also put an address label inside the outer wrapping in case the top layer gets rubbed off. A wise precaution!

THERE ARE not too many packages for Fort Smith at the Yakima post office on that particular day. Aunt Hattie tells the postal clerk that her package contains a cake. He decides it is safe to put it in a sack. The sack is labeled "MILES CY & SEAT WD TR 2," which translated means the railway postal clerks on Northern Pacific Train 2 on the Western Division (WD) of the route between Miles City, Mont. and Seattle, Wash.

Western Division clerks will open the sack and, finding mail for many different places, will work it all into separate sacks. Parcels for local delivery on their route will be placed in direct sacks labeled to the destination towns. If there is enough Arkansas business to warrant it, Aunt Hattie's parcel will be placed in a sack containing parcels for the state of Arkansas. This sack will be labeled either "LINC & BILL WD TR 42," for Lincoln to Billings, Western Division Train 42 at Billings, Mont., or it may be placed in a sack labeled "KANSAS CITY MO, TERM. ARKANSAS PP."

Somewhere enroute this sack will be sent to storage. That is, the clerks in order to make room for their work will send it and others ahead to the storage cars on their train. At Billings, all mail from NP 2 which goes on Q 42's route will be transferred to the Burlington train. Only working sacks will go to the clerks. All the rest will go into the storage cars.

In compliance with a complicated schedule issued by the baggage department, the mail will be sorted according to destination or dispatch point and placed not only into several different cars but further separated into different compartments in each car. For instance, if the sack containing Aunt Hattie's present is labeled to KC Term, it will go into the Seattle-KC car. There are

A lively package attracts Messenger Robinson's attention. Like other livestock, puppies must be guarded against colds in transit

Freight Chicago-ites never see in motion: 650,000 carloads shunted annually from terminal to consignee and back via city's 60-mile tunnel network. Only subway passengers are operating personnel

Illinois Tunnel Company, whose plan was to lay rail and to transport express packages. Sometime in 1904 the new company obtained sufficient funds to finance the "tapping" of buildings along the route. To lay a switch along this route was a rather expensive undertaking, but it had to be done if trade was to be obtained. Gathering and disbursing stations were established and the company began to do quite a volume of intercity business. It was not great enough to finance the venture, however. More business had to be found.

A decision was reached to join the underground railroad with the trunkline railroad freight stations that were shipping hundreds of thousands of tons of freight annually into and out of Chicago. This required an extension costing $30 million. But optimistic investors financed the project.

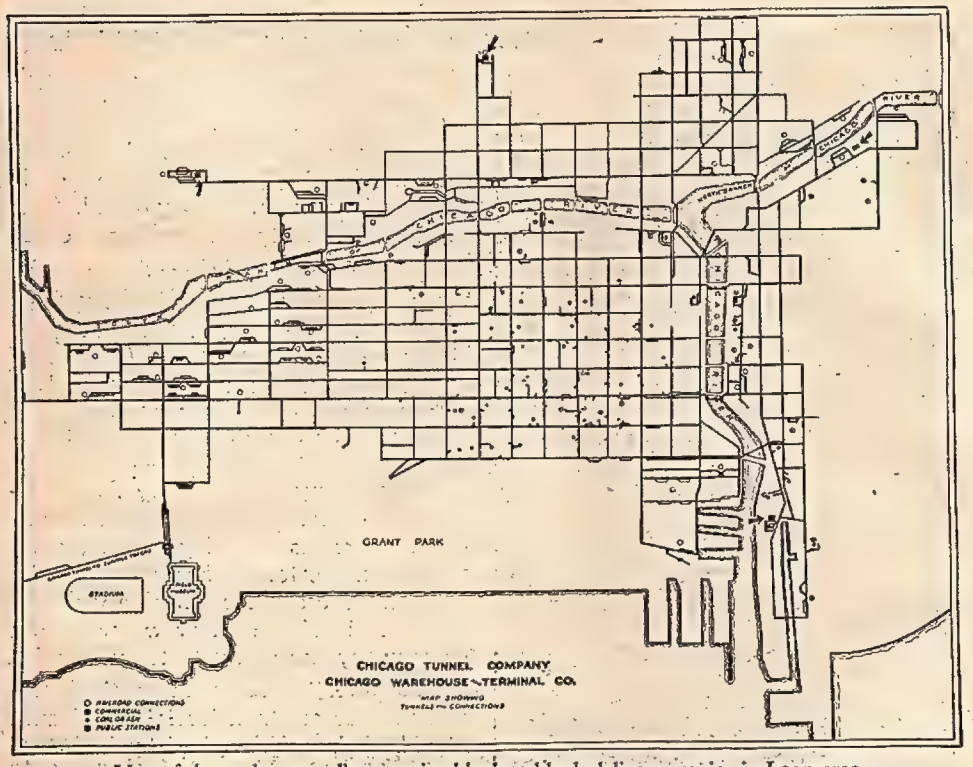
So great were the interest charges that the Illinois Tunnel Company failed in 1910, and a receiver was appointed. After considerable reorganization the entire holdings of the older company passed into the hands of the new one—the Chicago Tunnel Company. Since May 1912, the operation has been entirely with this company and Chicago's tunnels have long since been paying their way.

Oval at the top, the tunnels are 6 feet wide, 7½ feet high, and lined with about a foot of cement. There are 734 intersections, 49 railroad connections, 26 private connections (buildings, stores, warehouses, and so forth), 56 coal-and-cinder connections, 3 coal receiving stations, and 4 universal public stations where anyone or company has access to tunnel service.

Ninety-six elevators carry the small cars to floor or street levels to be loaded or unloaded, and then back underground again. The bores are lighted with 3800 electric lamps. The company justly brags that there has never been a serious accident within their tunnels.

The 150 electrically powered locomotives, each hauling a train of 10 to 15 cars, are directed over their various routes by a centrally located train dispatcher's office. The telephone system is complete with 266 phones. Chicago underground carries no passengers but owns approximately 3000 freight cars.

FOUR universal freight stations, strategically situated, give general shippers easy access to tunnel services. All railroad freight companies are reached directly by the tunnels. Every rail terminal and many warehouses and stores have private connections with the subterranean network. Tunnel cargoes, in addition to freight packages, include an assortment of loads which are better dispatched by sub-surface means. Under this heading come coal,



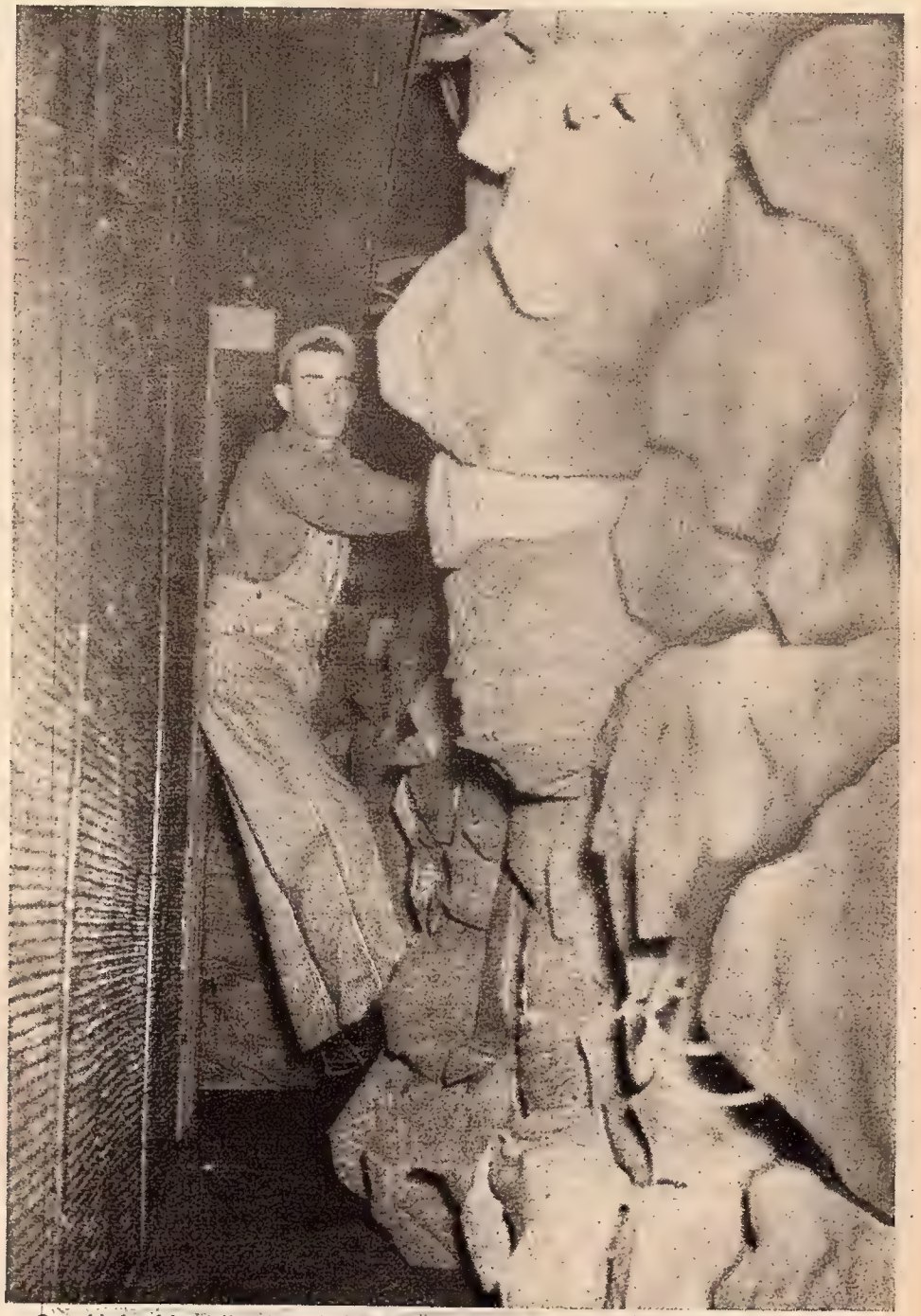
Map of the underground's extensive block-to-block delivery service in Loop area

cinders, waste and the rubble resulting from new excavations.

Deliveries of coal alone add up to 16,000 carloads annually brought into the Loop area via the tunnels. Tunnel cars also carry away 30,000 carloads of cinders. The yearly haul of excavated material—mud, dirt, stones, etc.—amounts to 70,000 cars. This refuse often is given a through run to park sites along the lake front or at low places along the Chicago River. Express and freight within the city is frequently shipped from the sender to the receiver without ever coming to the surface.

The complaint is often made that within many crowded city areas the cost of moving freight from a railroad terminal to a consignee, and from shipper to freight house, is greater than the tariff of the trunkline that brought it from afar. This, however, is not true in Chicago. The underground railroad enters the consignee's building in many instances, making transfer easy, quick and cheap. Generally speaking the expense of delivery is small in comparison with fees charged by the local express companies.

Twenty-five hundred railroad freight cars leave Chicago daily over the many railroads serving the city. The same railroads bring in thousands of shipments consigned to Chicago business houses. A large amount of this incoming and outgoing freight is handled by the Chicago Tunnel Company. Tunnel cars are loaded in a company's warehouse or shipping room and taken by elevator to the tunnel tracks below. The tunnel company gives through bills of lading over all these railroads. Delivery to a tunnel station means that the shipper's worry is over: a dozen shipments for a dozen points on a dozen railroads may be made by a single delivery to the tunnel company. Were it not for the tunnel service the shipper would have to make his dozen separate deliveries to the twelve different railroad terminals.



Over his head in mail sacks, Johnny Bradford looks bleak at the prospect of having to find more room in this Seattle-Kansas City storage car. Government statisticians figure 3 linear feet to a sack, 920 sacks to a 60-foot car, 1077 sacks to 70-foot model; latter type is standard on the CB&Q which carries car, ***above***, in Train 42

Time out for a briefing in procedure for helpers—Author C. H. Wilson and J. Bradford—by regular messenger Fred Robinson

five different separations in the KC car. Kansas City Terminal is usually the second largest; the largest is St. Joseph, Mo. Terminal, Missouri PP.

At Kansas City, the sack will be opened again and Aunt Hattie's package will finally find its way into a Fort Smith sack in a storage car bound at last to its destination. If all messengers have been careful in handling the sacks, Tommie's eyes will sparkle at the sight of Aunt Hattie's cake, fresh and whole. Had there been anything really fragile in the package it would have been handled as an "outside" or separate from a sack. Storage mail is worked at a terminal or in an RPO car.

This brings to mind an amusing incident. Many persons seeing mail being loaded or dispatched at the storage cars think they can mail letters there. But first-class mail is not handled in storage cars, except in emergencies. It is never worked nor are letters canceled in storage.

One day recently at Newcastle, Wyo., a local V.I.P. came up to my car with a handful of letters. I directed him to the RPO several cars to the rear.

"I've had just about enough of this daily runaround," he stormed. "I came down here to mail letters and you're handling mail. You take these or I'll report you to the Government."

I wanted to say a few things myself at that point but kept my temper down. "I can't take first-class mail here," I told him. "This car is only for parcel post. You'll find a mail slot in the car with

the hook on the door back there."

"I'll get you for this, if it's the last thing I do!" the man threatened and strode off toward the rear of the train.

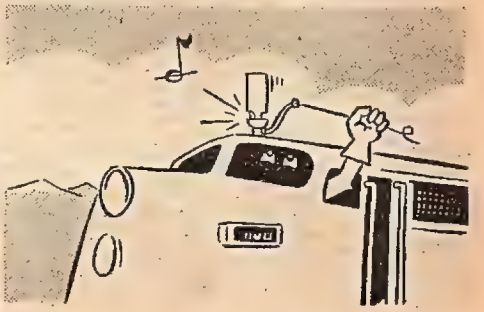
STORAGE SPACE in the baggage cars is paid for according to the amount of space used by the mail. However, instead of measuring the space which is in linear feet, roof high, with an aisle between, space is scaled according to the number of sacks. Forty-six sacks or their equivalent in sacks and outside parcels (1¾ parcels equal one sack) is called three feet of linear space.

Regardless of how many actual sacks there are, a loaded 60-foot car will be recorded as having 920 sacks in it. A 70-foot car, which is the general size on this line, holds 1077 sacks. Periodically, the Government runs tests which raise or lower the unit count for three feet of space. On less-than-carload lots the mail is counted. These figures are then resolved into feet of space. While the mail holds an important spot in the messenger's daily work schedule, except on runs where he works express exclusively, he still has his livestock to feed and water, his fish to re-ice, his express to sort and his clerical work—all of which is heavier at Christmas.

By its very nature express must get special handling. It must be sorted and piled in accordance with set rules and requirements. Light, soft packages must be placed on top to prevent crushing; heavy and solid shipments underneath. Piles must be substantial lest the jar and sway of the train cause the piles to cave in. When a pile caves in blocking the aisle in a nearly full car, it is practically impossible to repile it. And no one wants his presents walked on even if they are in sacks.

In repiling the express thought must be given to making space for express to be picked up enroute. This means piles that are solid from floor to roof. The higher the piles, the less floor space they will use. Aisles must be kept free, for it is necessary to pass through them many times during a trip. Thought must be given to right temperatures for perishable shipments. Livestock, especially Christmas puppies, demand special care lest they catch cold in the drafts that come through the cars at every station.

It is useless to hope that people will suddenly take heed of the Shop-Early signs and give us our Christmas Rush ahead of time. However, we messengers are content in knowing that through our care thousands of kiddies can have A Very Merry Christmas.



Railroads, Spare That Whistle!

THE DAY is fast approaching
When no longer will we hear
The locomotive whistle,
On a midnight, shrill and clear

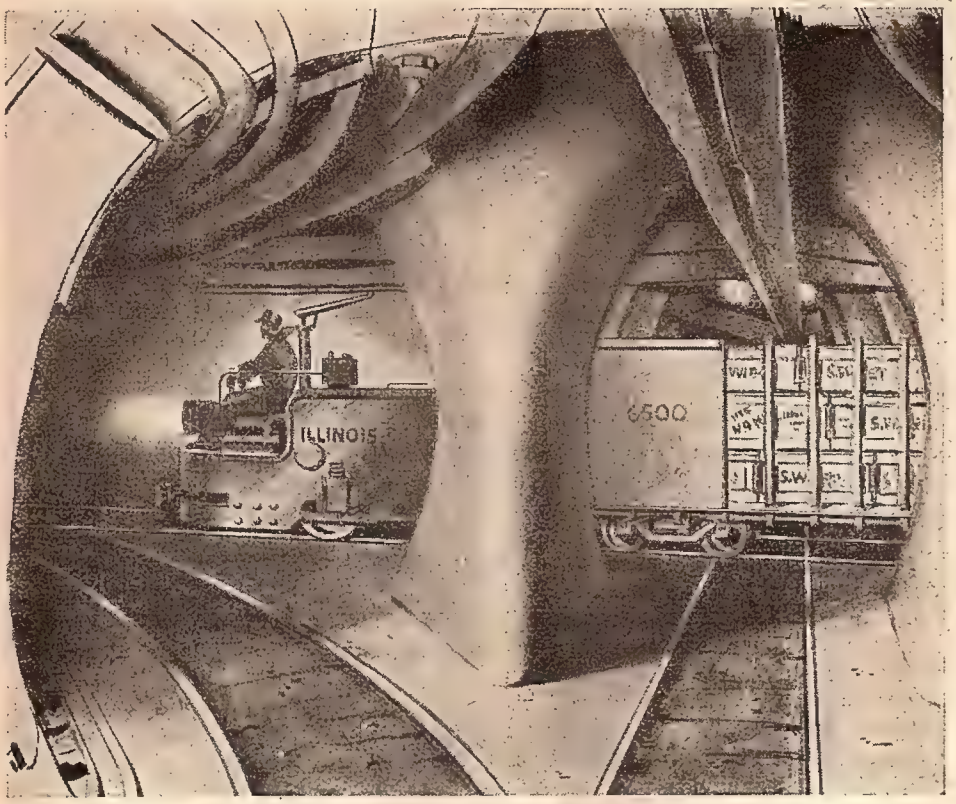
For tomorrow we shall listen
With a little wince of pain
As we hear the honking herald
Of a streamlined Diesel train.

No longer shall an engine
Have distinction in her voice.
The squawking Diesel duck horn
Doesn't offer any choice.

Let's find some railroad magnate
Whose influence is strong.
Convince him that the whistle
Has been done a mighty wrong.

Let's disown the dismal duck horns
With their awful blate and blare,
Put whistles on the Diesels
To be blown with compressed air!

—Richard Pedler



Electric Lines:

CHICAGO UNDERGROUND

By FRANK BALL

"NO OTHER city has one like it," boast the citizens of Chicago who know about their city's underground railroad. For peculiarly enough not all Chicagoans are aware of the miniature subway that cuts 40 feet below the surface of every street in the Loop District and under many streets outside, crossing beneath the Chicago River 11 times. This narrow-gage railroad is 62 miles in length. Its rails lie two feet apart.

In the early days of the telephone and telegraph system in the metropolis, a way was sought in which wires and mechanism could be located underground without streets having to be torn up in their repair. A system of tunnels resulted. A franchise was given the Illinois Telegraph & Telephone Company in 1899. Construction was started in 1901.

Twenty miles of tunnels had been built by 1903 when the funds and the credit of the IT&T came to a dead end. And the plan to install an underground writing-and-talking system for Chicago had failed. All the company had left was a long hole in the ground. The automatic telephone system for which the tunnels were expressly built was also a failure.

In 1903 the franchise was sold to the

This year Chicago's miniature railroad will shunt more than 600,000 tons of package freight and 120,000 carloads of coal, cinders and waste across its two-foot rails. Were it for this alone, Chicago transport experts should treat the small pike to a certain amount of respect, especially since 3 percent of its gross revenue—a minimum guarantee of $10,000 a year—goes into city coffers. And there is a negative advantage to the tunnels. In taking traffic off the streets, they are relieving congestion in a densely crowded area.

Repeat performance. Under new management, Milwaukee Electric's M-11—or accurate facsimile—may again perform switching operations on Hales Corners line

Yet whether Chicago-ites appreciate their good fortune or not is a question that cannot be decided for another 12 years. In 1962 the company's franchise will expire. Already there are rumors of high bidding for the underground system for steam heating, air-conditioning and providing power for the downtown buildings. When and if this does happen Chicago will lose what is claimed to be one of the two non-passenger subway systems in the entire world.

Carbarn Comments

Steve Maguire

IT LOOKS like new life under pro-rail management for the Waukesha and Hales Corners run of the Milwaukee Electric since Jay E. Maeder, Cleveland industrial engineer and railfan, took over control from the Northland Greyhound Lines. While in control, the latter had attempted to convert these successful rail routes to bus operation. Faced with relentless opposition from the traveling public, however, the Greyhound company sold out its interest to Maeder, who made it known from the very start that his plan was to run not ruin the electrics.

Those who have read these columns regularly will recall frequent references to Milwaukee's Waukesha line. For the past few years the line has certainly been taking a beating. First sign of trouble came shortly after its purchase by Henry Bruner, a bus operator. Bruner's solution to the transport crisis in Milwaukee was to change the Kenosha and Port Washington lines over to buses, and when he could do nothing else with the Waukesha route, to sell it to the Northland Greyhound Lines. Last year your Editor became aroused when he heard reports that John Steinmetz was negotiating with Greyhound for the purchase of this branch, for despite Steinmetz's avowals of being in the market for new electric cars, rumors persisted that he himself was merely fronting for a scrap-metal concern. The strategy was to buy up the electric and then peddle the equipment as scrap metal.

Fortunately the Steinmetz backers got cold feet when their scheme was brought to light, and Maeder made his offer. But even his intentions were questioned by some. Bob Heglund, 1213 Grant St., Waukesha, Wis., wrote that one of the attorneys for a town along the line called him up, after reading an item about the Waukesha line in *Railroad Magazine* bearing his name, and asked about Maeder and the possibility of new cars keeping

Transit Progress Day in Washington brings out old equipment and old clothes *(see below)*

high speeds on this Milwaukee route.

Maeder has obtained the services of E. L. Tennyson, engineer for the Pittsburgh Rys., to manage the line. By his purchase, the industrial engineer has jumped from the vast company of enthusiastic fans who operate model railroads in their basements to the big leagues of modern transportation. Present indications are that the heavy green-and-yellow interurbans, in service for so many years on Milwaukee's interurban lines, must be replaced by lighter cars. Their weight is an unnecessary expense in these days of fast, lightweight equipment, and the two-man operation necessary increases overhead costs to such an extent that it is difficult to keep the line in the black.

There has been talk that the ex-Shaker Heights MU cars, recently replaced by PCCs, might be obtained by Waukesha at a low cost. This is now an accomplished fact: 6 of these cars are now in service, in addition to 2 identical Lehigh Valley Transit electrics formerly used on their Eastern lines. There is a possibility that the line may utilize the Milwaukee articulated local cars in the 1031-1050 series. Many believe that these electrics can be speeded up to standard; if so, they have one feature that must boost the morale of any management: a loading capacity of 97 seats. Well adapted to the Waukesha line, Cars 1031-1050 were built in 1930 and rebuilt as late as 1942.

At any rate, our best wishes to Jay Maeder in his efforts to bring the tops in modern rapid transit to the Waukesha line. We know our readers, also, appreciate the efforts of those in the towns and cities enroute who have worked so hard to prevent the bus and scrap interests from taking over and abandoning the line. The new name of the outfit will be Milwaukee Rapid Transit & Speedrail Company, with the cognomen *Speedrail* as the company trademark. Officials have already petitioned the ICC for restoration of interstate freight tariffs on both the Waukesha and Hales Corners lines. Thanks to previous owners only intrastate freight exists.

* * *

RESIDENTS of Washington, D. C. were amazed to see a trailer train, consisting of two single-truck cars of vintage dating back to the Gay Nineties, roll along the streets of the Capital City not long ago. A ghost train? No, just the celebration of Transit Progress Day. What was even more amazing to those who knew of the special trip was the fact that the Capital Transit Company ran this

outing with railfans as its *guests!* It's the first instance we know of when railfans have been given a free fantrip

Guests of the CTC were the *Tractioneers,* a group of juicefans from Washington and vicinity. For the occasion the riders dressed themselves in loud plaid suits, taffeta-hooped skirts and other accoutrements of the Gay Nineties' era, including the ubiquitous derby. The train consisted of an 1898 four-wheeled motor car carrying trolley pole and underground conduit, and a single-truck, open-platform trailer, built in 1892 for cable-car service. The special provided a noticeable contrast to the PCC-liners which now service Capital City railway lines. It had been many a year since a hand-braked electric appeared on the streets of Washington.

Elsewhere Transit Progress Day was celebrated with exhibitions of new cars. Detroit, the motor city, had one of its new order of PCCs on display downtown. In Toronto two of the new multiple-unit PCCs were displayed at the Canadian National Exposition.

* * *

IN A recent issue of the *Traveler,* Philadelphia Transportation publication, the company reports that one streetcar is the equivalent of 29 automobiles in carrying capacity. While a streetcar uses 70 square feet of space, an automobile—taking into account its carrying capacity—uses 500 square feet, or more than seven times as much.

Dave Herb, 222 Bartlett Ave., Sharon Hill, Pa., who sends us this information, suggests that maybe it's time to ask whether streets are for the use of moving the greatest number of automobiles, or the greatest number of people?

AS ANTICIPATED in these pages not long ago, the Baltimore & Annapolis has petitioned the ICC for bus substitution for all railway interurban cars, retaining its rail for freight service only. Dick Myers, 3803 Clifton Ave., Baltimore 16, Md., reports that the B&A wants to move its bus terminal farther uptown in Baltimore, commenting, "With BTC buses already lined up bumper to bumper during rush hours, I wonder where they think they'll find room to run the present B&A buses, plus the ones that are supposed to replace the rail-line cars?

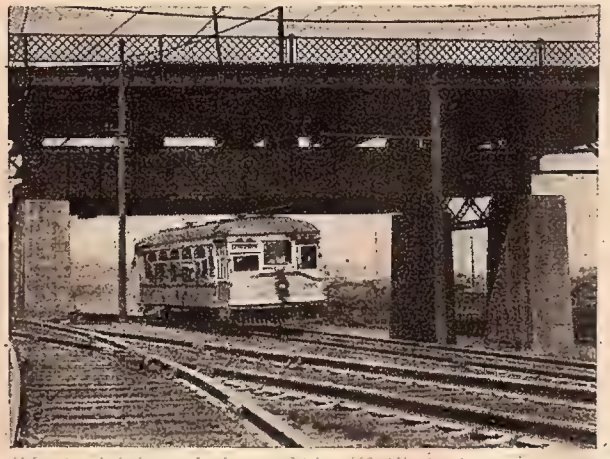
"The B&A hasn't stated what type of motive power would be used on the rail line, if passenger cars go. I suppose that it will stay juice for a while and eventually be Dieselized, as predicted in the juice section of *Railroad Magazine* some time ago."

* * *

MORE bad news. The residents of Toronto's North Yonge area recently voted to permanently replace the railway line to Richmond Hill with buses. The latter had been operating since last year as a temporary substitution. Showing the apathy of the voters, only 12 percent turned out to register their feelings on the matter; and final results went to the buses by a four-to-one count. This dooms the 400-series TTC suburban cars.

As expected, the Saltzburg interests have petitioned for abandonment of the

Portland Traction Car 501 stands at Patton Road crossing, present terminus of line that once followed scenic route up to Council Crest, Ore.



Shaker Heights 305 leaving Cleveland's 55th St. Station on tracks adjoining New York Central
Deane V. Bearse

Des Moines & Central Iowa passenger service, and in record time were given the okay. Last September 28th brought to an end the five interurban trips between Des Moines and Perry. Freight service will probably be Dieselized shortly, reports John Schmidt, 2720 Glover Ave., Des Moines 15, Ia.

* * *

LAST September 24th, Lehigh Valley Transit's Liberty Bell interurban cars ended through service to the Quaker City, substituting the Philadelphia & Western connecting service from Norristown to the 69th Street terminal. We understand that the P&W has wanted LVT to terminate its runs from Allentown to Norristown for some time, due to frequent breakdowns on P&W tracks. These delays have interfered with regular P&W service.

Freight service will continue via LVT from Allentown to 69th Street since the freight motors run late at night and cause no trouble to P&W passenger cars. However the 50-mile passenger trip to the 69th Street connection with the elevated into downtown Philadelphia is no more.

THE SCRAPPING of 82 Birney cars on the Halifax, N. S. street railway brings to a close the last electric line in the Maritimes. Here is a little data on these lines sent in by Stan Borden, 944 N. Street, Eureka, Calif., for one last look at Nova Scotia's glory days.

Western Nova Scotia Power Co. operated 3 miles in Yarmouth N. S.; abandoned service Oct. 20, 1928.

Calais Street Railway operated 7 miles serving Calais, Me., Milltown, Me., Milltown, N. B., and St. Stephen, N. B.; abandoned service about 1930.

Pictou County Electric Co. operated 9 miles serving Westville, N. S., Stellarton, New Glasgow and Trenton; abandoned service April 1930.

Moncton Tramways, Electricity & Gas Co. operated 3 miles in Moncton, N. B.; abandoned Dec. 31, 1931.

Cape Breton Tramways operated 21 miles serving Sydney, N. S., Reserve, Dominion, New Aberdeen and Glace Bay; abandoned April 1947.

New Brunswick Power Co. operated 23 miles in St. John, N. B.; abandoned service Aug. 7, 1948.

New England relic is 2-mile York Utilities, Maine's last electric and originally part of Atlantic Shore Ry. *Right*, Motor 102

Philadelphia story. Like every metropolis, Quaker City will be seeing fewer electrics. LVT's Liberty Bells, *left above*, have been bounced from 69th St. terminal

Newfoundland Light & Power Co. operated 3 miles in St. Johns, Nfld.; abandoned service Sept. 15, 1948.

Nova Scotia Light & Power Co. operated 25 miles in Halifax, N. S.; abandoned service April 30, 1949.

WEST PENN roster sent in by Harry Bartley in connection with our West Penn story (June '49) was not an all-time roster, says Bartley himself. Some cars, scrapped long ago, were lacking from it. To amplify his listing, he sends us the supplement printed below. Our thanks to other fans who also gave us news of roster additions.

Addition to West Penn Roster

Number	Builder	Year	Motors	Trucks	Brakes	Controllers
5, 7-10	American	1899	2 West 56	Brill 21E	Hand	2B23
1, 2	Laclede	1903	2 West 56	West Penn	Hand	2K10
3, 20	Laclede	1903	2 West 93A	Peckham 9AX	Magnetic	2B23
4	Brill	1901	2 West 93A	Peckham 9AX	Magnetic	2B23
26	Brill	1900	2 West 56	Brill 21E	Hand	2K11
49, 50	Pullman	1902	2 West 56	Brill 21E	Hand	2K10
51-53	Brill	1903	2 West 56	Brill 21E	Hand	2K10
100, 101	St. Louis	1900	2 West 56	Brill 21E	Hand	2K10
103-105	St. Louis	1900	2 West 93A	Peckham 9AX	Magnetic	2B23
107-119	St. Louis	1900	2 West 93A	Peckham 9AX	Magnetic	2B23
102	St. Louis	1900	Unknown			
123	Laclede	1900	2 Lorain 34	Peckham 9AX	Hand	2K10
124-133	Jack. & Sh.	1899	2 Lorain 34	Peckham 9AX	Hand	2K10
137, 138	Laclede	1900		Brill 21E	Hand	
139-148	St. Louis	1900		Brill 21E	Hand	
300-312	St. Louis	1903	2 West 93A	West Penn	Hand & Mag.	2B23
313	St. Louis	1903	2 West 23	Baltimore	Hand & Mag.	2B23
314-322	St. Louis	1903	2 West 23	West Penn	Hand & Mag.	2B23

NOTES: WP Car 200 was identical with 201-224 class. All 100-series cars except 102 were open cars. 49-50 were bought from Chicago Rys. for Oakdale-McDonald line.

A Piece of String

By IRVIN H. CADY

A PIECE of string once provided the subject for a famous short story by Guy de Maupassant. In that tale a peasant by the name of Maitre Hauchecome picked up a piece of string and thereby wrecked his life. The modern version of this story—in which fate and a detail are of great consequence—is about Larry Dale, an express messenger who worked on one of this country's great railroads.

It was the night before Christmas. Larry had cleaned up his run and settled himself comfortably in his chair for some needed rest. He had had an unusually heavy day. He had tallied all shipments with the exception of two truckloads of through express which had been loaded into his car at the starting terminal; he had checked the waybill numbers from a duplicate tally as they were called off to him at the time of loading. This express would be unloaded at the next stop, Larry's home terminal.

Just as he tilted back his chair, Larry looked up and noticed for the first time that a package on top of the through express had one end torn out. "Now, I'll have to get up and tie up that package," he thought, remaining contentedly seated just where he was. But his mind ran on, contemplating the damage that might occur should the contents slip out of the broken box.

Larry's attention was diverted momentarily from the package, however, when Scotty, the airedale, let out a howl in the dog kennel by the door. Larry knew the name of the dog for some thoughtful per-

son had labeled the name on the kennel.

"You know, Scotty," said Larry, "I should tie up that package, but I'm tired and don't feel like gettin' up. I'll just wait until the end of the run, then I'll tell the boys at the terminal to fix it up."

Scotty seemed to understand what Larry was saying. He thrust his paw through the opening in the kennel and dangled a string, whining as if to say, "Here's a piece of string, Larry. Go tie it up now." The string was hanging alongside the kennel where it had held a bag of food for canine during the early part of the trip.

"Yes, I know, Scotty," said Larry, rather annoyed. "I should tie up that package *now,* but I'm tired. You lie down and be still while I rest this next half hour. By that time we should be pulling into the home terminal."

The expressman listened to the long drawn out whistle of the locomotive. Its tone seemed to foretell a change in the weather. He concentrated on the humdrum *click-click* of the wheels on the rails, letting the sound grow louder in his ears until waves of drowsiness swept over him. Suddenly he became aware that the rhythm was broken: the train was speeding through a small-town crossing. In only a matter of moments, however, the train settled back into that monotonous *click-click* rhythm. Larry twisted his chair around so that he could relax better.

LARRY DALE always prided himself on the fact that he made a personal contribution toward getting *his* train over the road on time. He had his work organized well in advance and at stations he worked swiftly. One thing that annoyed Larry above everything else—and usually brought forth a blast from him—was any delay on the part of an employe in moving his truck to the car door once the train had stopped.

Tonight when Larry pushed the car door open, as he saw a new employe pulling up a truck. "You the new man on the job?" he queried.

"Yes, sir," said the stranger. "My name is Means, Harry Means. I've been helping the boys out during the holiday rush."

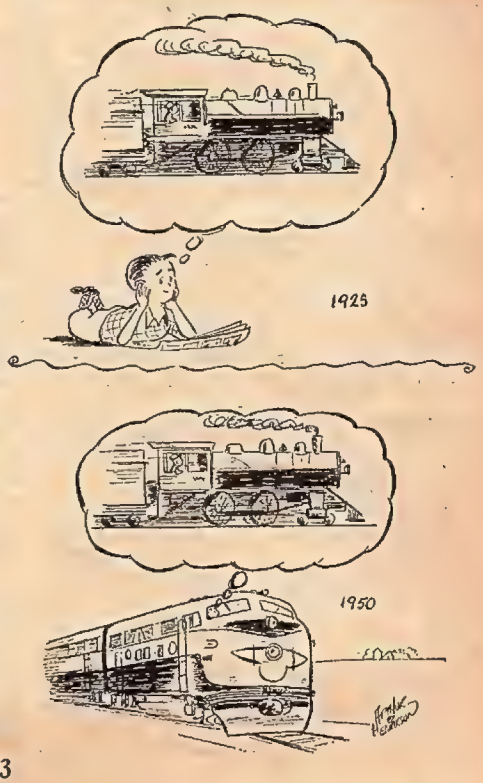
"All right," replied Larry. "Take these heavy boxes, start loading your truck from the rear and be sure to wing them out. You have a lot of express here for two trucks, and you'll need all the room you can get."

Means nodded and went to work without delay. There was no time for talk between Larry and himself. The second truck was being loaded with dispatch when *bang*—something fell to the cement platform below. There followed the noise of scraping metal.

"What was that?" asked Larry.

Harry Means didn't answer immediately, but bent over to examine the object in question. "It's a—it's a toy truck, and it's been crushed under the wheels of that other truck. Must have fallen out of this package. I didn't do it. It was an accident," he concluded excitedly.

Bill Tate, the depot foreman, showed up



at this point. "I'll just carry it over to the station," he offered. "You boys can make out a report later. I'm afraid, though, some poor kid's going to be disappointed."

As Tate moved off, Larry turned uneasily to Harry Means. "It wasn't your fault," he said kindly, feeling guilty for not tying up the package when he had first noticed it. "Don't worry about the report. I'll make it out myself."

In the station some minutes later, Larry picked up the package to make his report. "My God!" he exclaimed, and the color drained out of his face. On the package which he held before him was the name and address of Larry Dale, Jr. It was several minutes before the expressman drew the battered truck from its wrappings. It was a miniature express truck, headlights, battery and other details duplicating a big express truck. The cab and front end were crushed, far beyond repair. Sadly Larry pushed it back into its box and crumpled up the blanks on which he intended to make out a report.

Larry walked out of the station and wrestled with his conscience. Junior had not been very well lately. What would the disappointment mean if he received the broken truck, or no truck at all? He had been talking of nothing else for weeks,

"I keep getting some streetcar in Altoona"

hoping Santa Claus would send him one, and now Larry remembered that his wife had ordered one by express. Then he thought of the fable he had learned in school: for the want of a nail the shoe was lost; for want of a shoe the horse was lost; for the want of a horse the rider was lost. A different version came to Larry. For the want of a string the package was lost, for the want of a package the. . . .

HEY, LARRY!" someone yelled. "Open the door. Train's settin' here several minutes now. What's the big idea? Been sleepin', eh? Who ever heard of Dale asleep on the job? Even the dog couldn't wake you up."

Larry looked bewildered as he slid open the car door. "Shut up, Scotty. Just a minute, boys," he said. "I've got a package to tie up."

"Fine time to tie up a package," said Bill Tate. "We're late unloading now—we'll tie up the package."

"I learned a big lesson on this run," said Larry, "and I'm going to tie it right now. Remember the old adage—'A stitch in time saves nine.'" He unlocked his train box to get a ball of twine.

"What's the name of that new fellow bringing up that next truck?" the messenger asked, as he handed out the mended package.

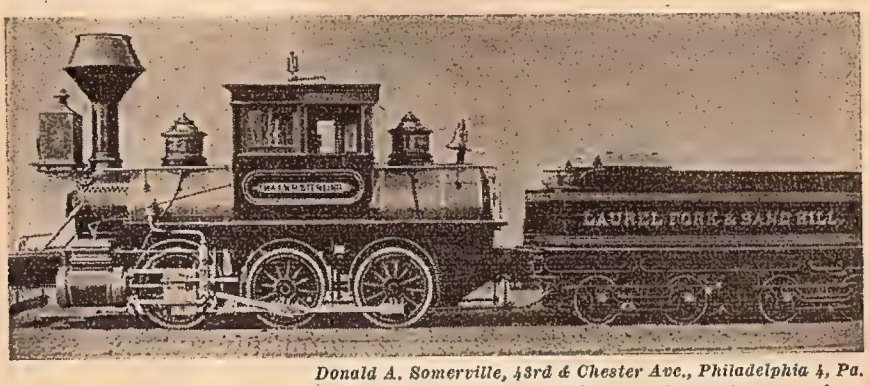
"Harry, somebody. Don't remember his last name," replied Tate. "What's the matter, Larry? You're acting strange tonight. I don't believe you're awake yet."

"Would you mind looking at the package that I just tied up to see whom it's addressed to?" Dale asked quietly.

"Sure," said the foreman. "Let's see—it's addressed to Larry Dale, Jr."

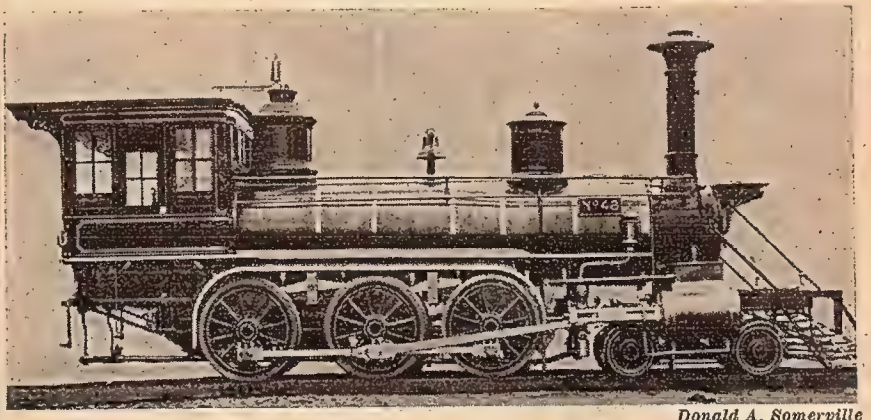
"I thought so," replied the messenger. "Let me sign for it now."

That night as he placed the toy truck under the Christmas tree, Larry wondered if his dream could be only a coincidence. As in de Maupassant's story the last words of Maitre Hauchecome kept repeating themselves over and over in Larry's mind, "A piece of string, a piece of string—look, here it is, M'sieu' the Mayor."



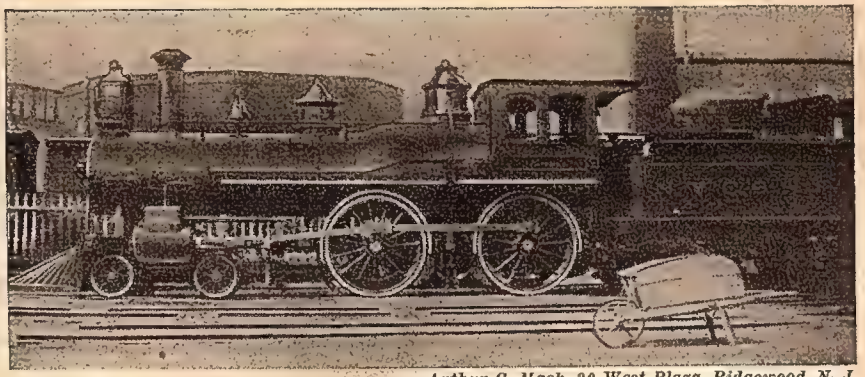
Donald A. Somerville, 43rd & Chester Ave., Philadelphia 4, Pa.

Baldwin turned a polished lens on the ***Major J. W. R. Sterling,*** as the engine came from the shops in December 1872. Like her owner she has long been abandoned



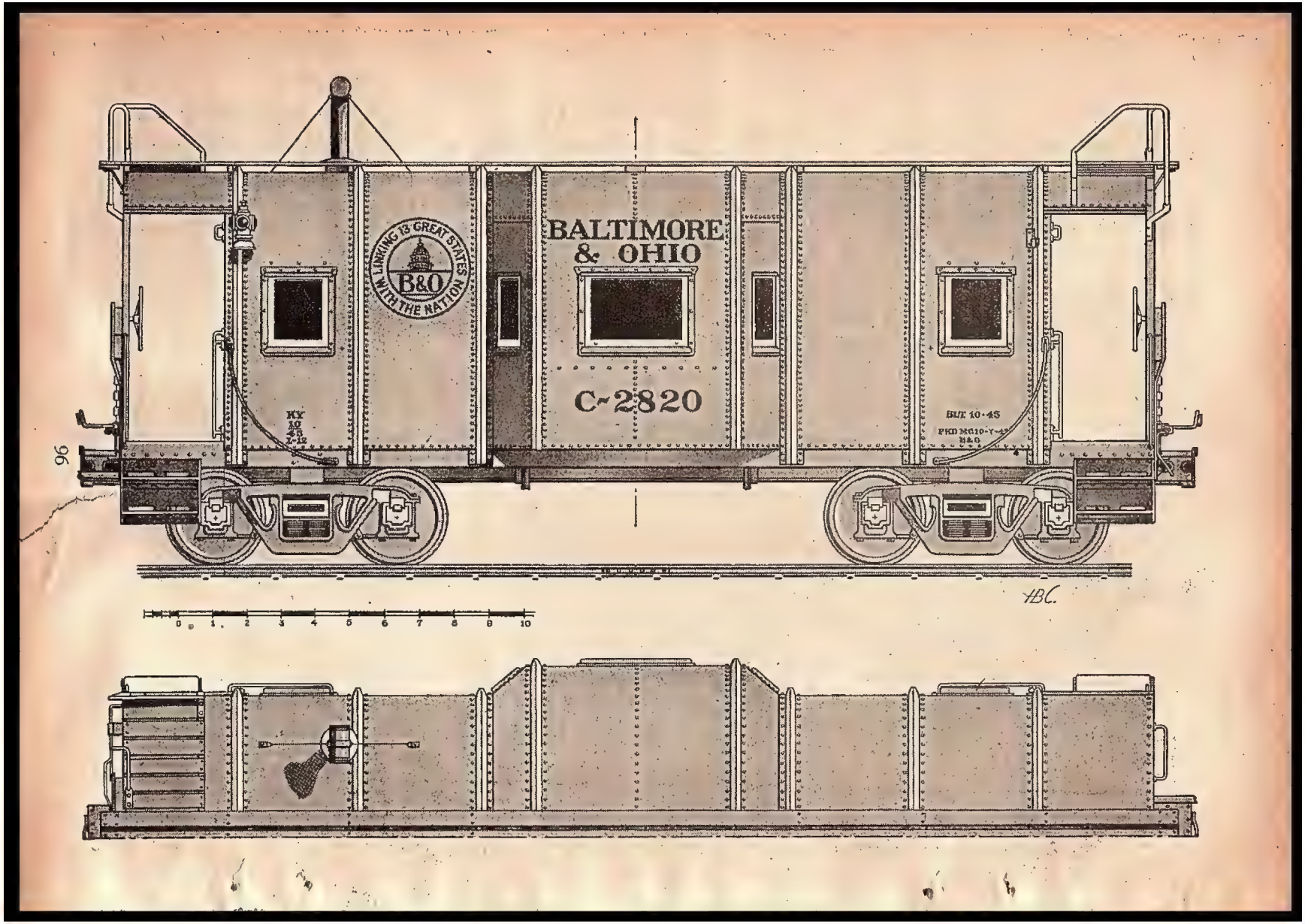
Donald A. Somerville

Northern Central No. 48, outshopped by Baldwin in 1862, had 18½x22-inch cylinders and 49-inch drivers. Tall cap stack safeguarded Pennsylvania and Maryland countryside



Arthur C. Mack, 20 West Plaza, Ridgewood, N. J.

High-drivered New York Central & Hudson River No. 661 takes on water at Hudson, N. Y., during 1880s; locomotive was later numbered 784, then 969. Wheelbarrow in foreground helped to empty overloaded ash pits


BALTIMORE
& OHIO
LINKING 13 GREAT STATES WITH THE NATION
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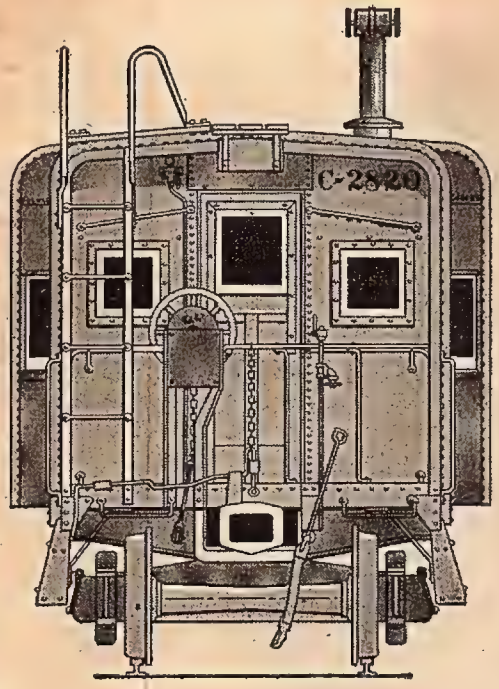
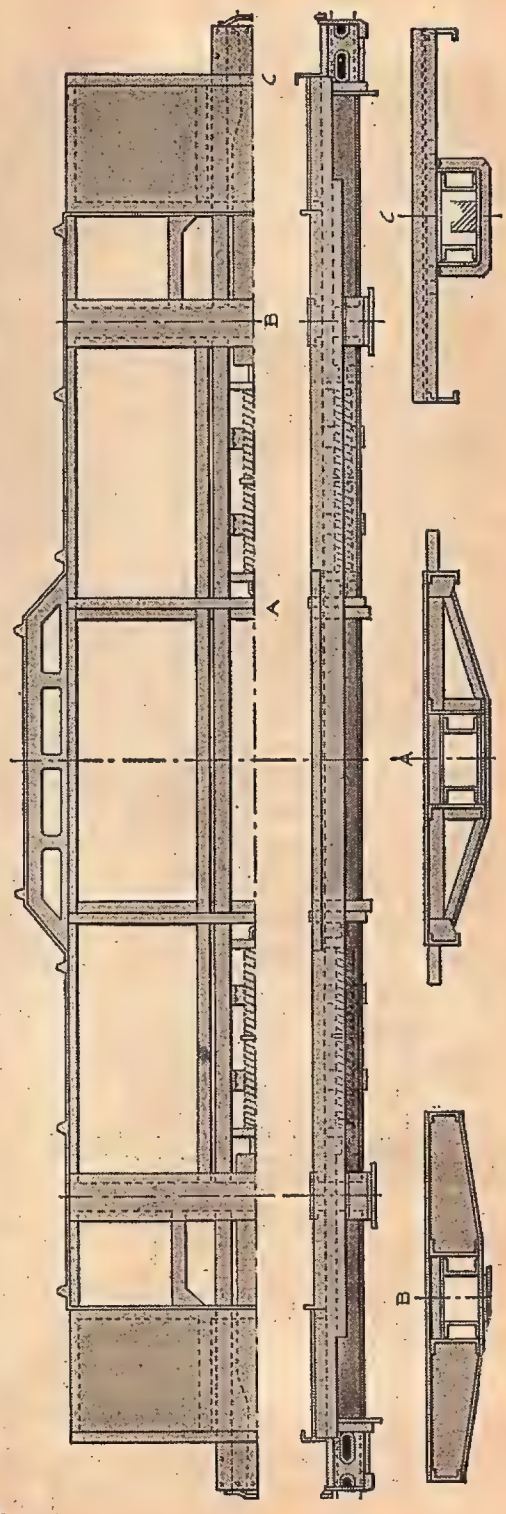
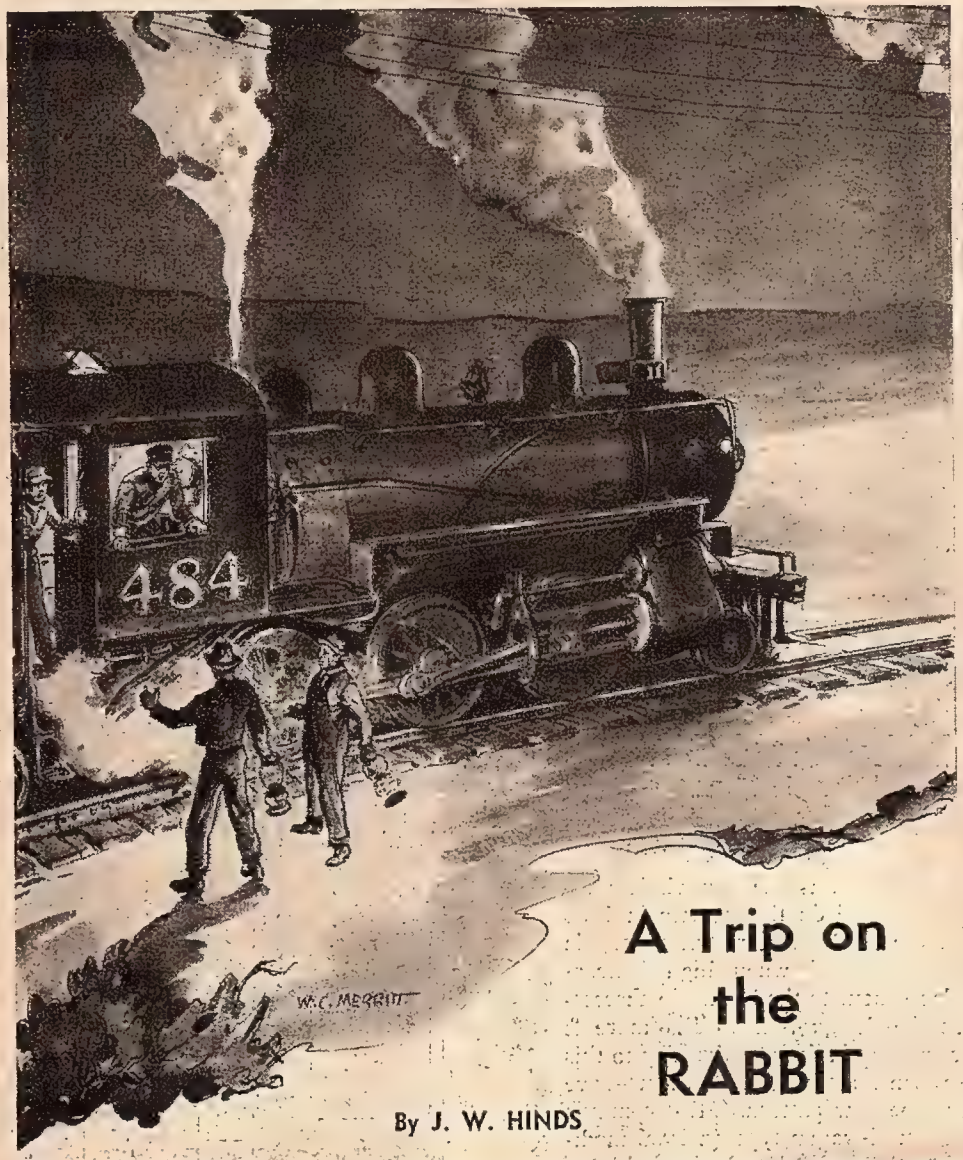




BAY-WINDOW CABOOSE

B&O "first" was the bay-window caboose, originated on that system in 1930 to meet the problem of restricted cupola vision encountered when high boxcars were placed next to the hack. So successful was the design that all Baltimore & Ohio crummies built from that day to this —more than three hundred of them—have followed the new pattern. Most common is the covered-wagon type (a 1936 modification of the original car) pictured here. The unique roof contour, combined with projecting ladder guard rails, gives the prototype a character which is distinctly modern and at the same time colorful. Paint C-2820 boxcar red, with lettering and grab irons in brilliant cadium yellow. Next month: Interior details and brake rigging diagrams.

The Nutsplitter



A Trip on the RABBIT

By J. W. HINDS

ALONG ABOUT the year 1918, I was firing out of Houston, Tex., on the old Houston East & West Texas—Hell Eny Way You Take It—or in kinder terms, "The Rabbit." Now part of the Southern Pacific, this pike gave me a chance to fire for such locally famous hogheads as Marshall Bethel, Chink Clavert, Jack Diamond, Jim Sharburt, Jimmie Acerage, Marvin King and many others, including hard-hitting, high-rolling Engineer Alberta. I don't recall Alberta's first name, but I will never forget his antics in the cab; no matter how that old 675 would roll and pitch, Alberta would just grin and widen out on her a little bit more. Actually it was this engine —the 675—and Johnnie Rockwell that put me back in a telegraph office, where I had started my railroad career, determined

"What in hell are you doin' on the mainline?" the extra's skipper yelped

that I'd never fire another locomotive.

But the most colorful trip I ever made while on that HE&WT was on Engine 484 with Trains 11 and 12. Since those were the days when a hoghead and conductor believed that a railroader couldn't get over the road if he lived up to the book of rules, it may be safer to call my young runner Bill Smith. The system of keeping a train moving was rather like running bases in a ball game: any time you saw a chance, you sped along and kept going until the timecard, orders or a red board stopped you. It might embarrass Bill to expose these cavortings now, since I understand he is in passenger service between Houston and Shreveport and probably wouldn't care to hear any more about it. Still if he reads this, he'll remember it perfectly, and if he wants to claim the honor, then glory to him.

The conductor was either Red Davis or a skipper named Hall, I can't remember which. To get started on this trip, we pulled out of Englewood Yard in Houston about 5 p.m., Engine 484 heading No. 12, a fast freighter bound for Shreveport, La. A fresh crew would relieve us at Timpson, but this town was 167.5 miles down the line. The 484 picked up her train and started out mighty nicely. As we gathered speed after entering the mainline, the engineer turned to me and grinned. "Feel pretty good," remarked Smith. "All signs point to a good trip—good engine and a good fireman."

Smith proved a poor prophet, however, for we had one heck of a time getting over the road. To start our troubles, we had such a light train that the 484 wasn't working enough steam to create a good draft and I had a hard time keeping her hot. I tried every conceivable scheme I could think of, regulating her dampers, propping open the flap on the firedoor and sanding her out for all I was worth.

While I was adjusting the sand scoop in the firedoor, I had to leave it to go to the engineer's side to pick up some 19s. I became interested in the 19 and let the sand scoop remain in the firedoor. Luckily for me that scoop did something to the draft that caused her to steam better. The sudden improvement couldn't have occurred at a more opportune moment, either. The hogger had begun to be disgusted with me, and was sounding off on the note that a decent fireman should have no trouble keeping this engine hot.

We pulled into a siding to let No. 4, a northbound passenger train, pass by. While lying in wait for the varnish which was about 20 minutes late, I stretched out on my seatbox to rest my weary bones since we were now getting on up the road and into the night. We were burning heavy Mexican crude oil for fuel which had to be heated by a steam coil in the tank before it would feed to the burner very freely. I forgot all about this steam coil and left it on full blast. I had barely grown comfortable when that Mexican sludge got too hot and started boiling.

Boy, what a mess!. That stuff began to bubble out of every hole it could find in the tank, and soon covered the deck and gangway. I jumped up of course and shut off the heater, but it was too late. I had to yank out the squirt hose and wash down the mess.

BY THIS TIME Bill Smith was really perturbed. "I've fired many an engine," he grieved, "and I ain't never boiled a tank over yet." This was the mildest complaint he offered but there's no use going into the rest. I was feeling pretty low myself—and his griping didn't relieve the situation.

No. 4 came and went. After receiving a highball from the rear end, we pulled out on the mainline, Smith widened out on her and the 484 settled down to her laborious task. We reached Moscow without further trouble and again we had to head in for a passenger run, southbound No. 3. As we eased into the siding, a happy thought struck me. I figured that since No. 4 was late, it had evidently tied up No. 3, so I jumped over to the engineer's side and said, "No. 4 probably delayed No. 3 and if you'll spot the engine near the depot. I'll go in and see if we can get some time on No. 3."

"Are you a telegraph operator?" muttered Smith.

"Yes, I am," I replied, hoping to reclaim his former good impression of my ability.

The hogger nodded to himself, as though beginning to see the light. Possibly he was thinking, "No wonder he ain't no fireman. Bet he's a fine telegraph operator."

This, of course, was prior to the installation of telephones for the government of train movements. So when Smith spotted the engine near the depot where the night porter was on duty to work the passenger trains, I had the porter open the telegraph office. By the light of the conductor's lantern I copied an order giving us enough time to go to Corrigan for No. 3, then I repeated and delivered the order to our engineer.

Suddenly the hogger got cold feet. "I've never run against a passenger train yet, and for me to start out now on orders copied by a fireman, makes me think it's mighty risky," argued Smith.

"Ah go on," the conductor told him. "I've run on this fireman's orders before and I know he's okay. Let's go."

Reluctantly the engineer climbed aboard the 484. Pulling up to the north switch, he read that order over and over, shaking his head in a doubtful manner. The head brakeman let us out on the mainline. "Well, here goes nothin'," remarked Smith dolefully.

With that he gave the 484 all she would take. At every curve he'd hang out the window, watching for No. 3's headlight. Finally as we rounded the last curve just south of Corrigan, we both saw the passenger coming around a curve just north of Corrigan. The hogger was standing up going around this curve, but when he saw No. 3's headlight, he gave a big

sigh of relief and settled down in his seat, shutting off the steam and drawing off a little air so he could head in at Corrigan.

Leaving Corrigan the runner let the 484 handle her train just like any good locomotive should. And when we reached the yard-limit board at Lufkin, he closed the throttle and began leaking off a little atmosphere. Lufkin is a freight division point; it was our only chance to get ourselves a real feed. Bill spotted the 484 as near to the beanery as possible, and since it was approaching the wee hours of another day, I was mighty hungry. I put plenty of water in the boiler, set my fire to where it would hold until I got back, then beat it over to the greasy spoon.

I arrived there ahead of my engineer. The place was by no means empty: a number of enginemen were sitting around, some eating and some just railroading. I sat down and started taking on some nourishment and pretty soon in limped my engineer, walking like a paralytic. His left leg and arm were drawn up, his tongue hung out of the corner of his mouth and he chewed on it like a maniac. For the moment I thought he was having a fit. But as I turned in horror to the guy beside me, I noticed that he was munching away with no concern.

I guess the oldtimer noticed the change in me. "Don't mind him," he laughed good-naturedly, "he always pulls that stunt when he's feeling good. Quite a character, ain't he?"

I nodded unconvincingly and continued my dinner in silence.

AFTER recovering from that shock, I felt better. Sure enough, after both Smith and I had a good square meal under our belts and a little relaxation from the vibrations of the 484, we were ready to move contentedly on to Timpson. About daylight we rolled right through the town without stopping. Then our relieving crew swung aboard, checked the firebox and other equipment while we grabbed our grips and dropped off for some shuteye.

At 9 or 10 that same night, we swung aboard Engine 484 to make our return trip with passenger No. 11. As soon as I hailed the fireman that I was relieving, I asked him if he'd had trouble keeping her hot. "Naw," he replied promptly. "I never have any trouble keeping an engine hot." So I soon realized I would get no information out of him and skipped the rest of my intended inquiries.

Yet shortly after my engineer began to widen out on her, I discovered that we had a much heavier train than the one the night before. This created a greater draft, and once I had sanded her sufficiently, she laid up against the pop with almost a clear stack. When we'd start up a hill she'd get right down to pulling just like an old mule; and whenever we'd top a grade and Smith'd shut off and give her the reins, it would be an effort for me to keep her from popping. Of course once that loud exhaust had stopped and she was coasting, you could hear the airpumps chugging away like some tired animal getting its breath after a hard run.

It was a beautiful moonlight night and the singing of the headlight generator made a fellow feel good as the old 484 raced madly down those hills gathering momentum so that she could get over the next one with as little effort as possible. Fitze Hill was our worst headache: I got a big thrill every time I fired an engine over it. The top of Fitze is just four miles south of Garrison, and leaving Garrison it's about two miles down a slight grade to the foot of Fitze. At the bottom of this slope there is a long right-hand curve on a high bridge. So whenever we rode through Garrison, the engineer would get up all the speed he could. Then when the wheels were turning as swiftly as possible —still keeping the engine on the rails— the hogger would shut off steam and let them roll. By the time he'd get to the bottom of Fitze, he'd have them going plenty fast.

The engineer and fireman would be tense as the cab rocked down from Garrison. Each had his own special nightmare: the engineer feared he wouldn't make it

over the top without doubling, the fireman was afraid his water would get away from him and he might not be able to hold the needle right against the peg. There would be no talk in the engine as they neared the foot of Fitze. But just before the hogger hit that long curved bridge, he'd wave his hand, let out a yell and widen out on her. She'd be going so fast that when he opened up, you couldn't hear any exhaust —it was just one loud roar. And when you looked ahead down the track and saw that curved bridge racing toward you at a mile-a-minute clip and felt engine below you charging it like a mad bull with all the speed and noise she could possibly make. . . .

Well, that night on Engine 484 I just couldn't stand the suspense. I couldn't sit on that seatbox and watch her make that bridge, so I dropped down in the deck and sanded her out until she'd gotten over it. From there on, it was one curve after another and the 484 labored for all she was worth until we reached the summit. By that time her exhausts were slow barks with long intervals between. Then at last she nosed her pilot over the top and slid down the other side. Immediately she began to pick up speed and Bill Smith closed his throttle to let her wind her way down the other side, pinching her down once in a while so that she would hold the rails on some of those sharp corners.

After ascending Fitze, it was a case of sit-there-and-ride until we reached Lufkin. There we had a chance to stretch our legs and take on a little nourishment; there, too, we picked up more running orders and a message to re-rail and pick up a boxcar at Leggett. Our orders were a meet with No. 12 at Leggett and a wait at Livingston for an extra north. When the engineer and conductor got their heads together, they decided they'd go to Leggett for No. 4 and No. 12.

So we all got aboard, the engineer whistled off and as we got a cheerful highball from the rear end, we drew out of Lufkin. After our hearty meals, we were in good spirits, confident of a very nice trip home. No one dreamed we were heading into some experiences not shown on the time-card or book of rules.

WE MADE it over to Leggett in fine shape only that between Diboll and Corrigan when Smith widened out on her and we started up Slippery Hill, a strange feeling came over me. It was right there that Henry Worsham and Fireman Persch met the rear end of a freight train rolling back on them—on this same run and, if my memory serves me right, it was the same engine. Henry had gotten them rolling good and fast, and had only opened her up when Fireman Persch saw a pair of tail lights coming down the hill around a curve on his side. He yelled at Henry, killed his fire and jumped. Henry shut off and big-holed her, then ran over to the fireman's side to see what was wrong Worsham jumped, too, but very nearly got caught. A pair of trucks landed on one side of him and a boxcar on the other.; another boxcar fell across these two, forming a bridge over him which was all that saved him.

There was a car of stock mixed up in it and a cow buried in wheat next to Henry kept moving around so that the engineer thought it must be his fireman. Henry kept calling to him, and when he got no answer, he figured the poor boy was gone. But at that very moment that "po' boy" was turning cartwheels about a half a mile back because when Persch jumped, his hogger really had 'em in the air.

Well, I didn't see any tail lights racing toward me that night and after a routine trip we drew into Leggett. As we neared the depot, the skipper came over and said to me, "Say, young fellow, wish you'd call the dispatcher and tell him that if we have to re-rail that boxcar, we won't be able to make it in on the hog law." I agreed and headed for the telegraph office.

The dispatcher seemed very pleased that I again called in and told us to leave the de-railed car since he wanted to get us as far as Livingston for Nos. 4 and 12 by giving us a run-late order on No. 4 and also a wait on No. 12 at Livingston. As I closed the key for the last

time, he added, "If the order board is red at Livingston, pull on down the mainline as I may be able to give you some more time on these trains."

Since my engineer was beginning to have more faith in me as a telegraph operator, he accepted my orders without further argument. Off we went to Livingston and as we rounded that curve north of Livingston, we saw that the order board was red. We eased on down the mainline as instructed by the dispatcher, and as we passed the telegraph office, the operator handed up some orders which I immediately handed over to the engineer. I was back on my seatbox when the engineer finished his hurried reading of the orders. After a quick glance through them, he yelled to me, "We'll go to Lamont for the whole works."

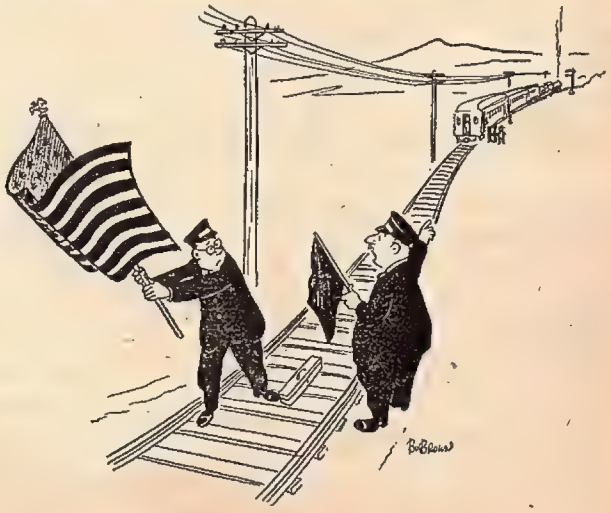
We were rolling down that hill out of Livingston and wheeling right along when all of a sudden a bright headlight loomed up from around a curve right square in our faces. I killed my fire and ran to the gangway all set to join the bird gang when I realized that both engines were going to stop before any damage was done. It was the extra north we were supposed to wait for at Livingston, and as it was only an engine and caboose, its hogger didn't have any trouble getting stopped. Soon we saw some lanterns approaching us. When they came along side, the extra's conductor hollered up at my engineer. His language for the first two minutes is unquotable.

"What the . . . are you doing out here on the mainline?" he yelped as he calmed down.

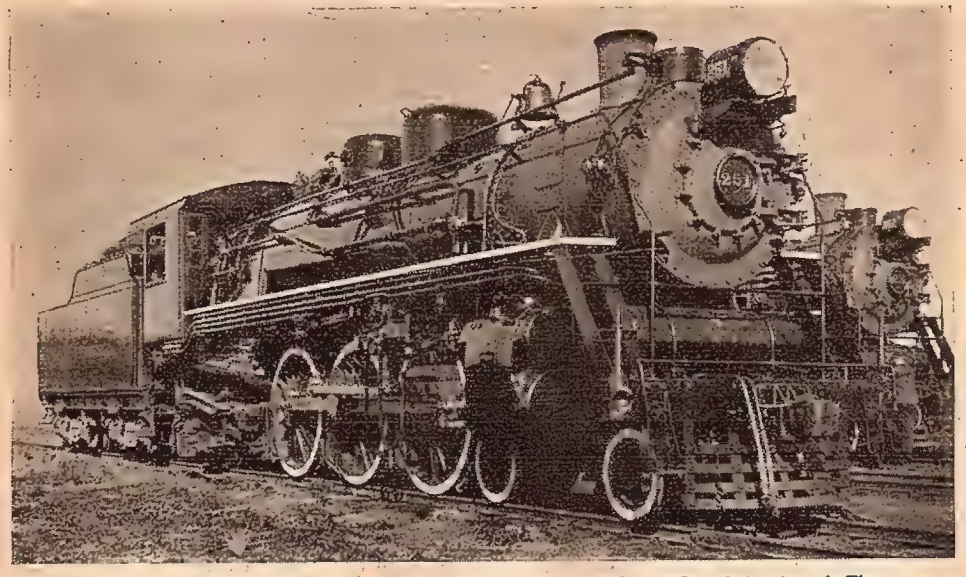
My engineer was smart; I think he should have been a lawyer. "I pulled down to back in, you dumb cluck," he shouted back, ignoring the fact that we had overrun our rights when we passed that south switch before our wait was up. But he had reasons for playing dumb.

Now no engineer would ever let a heavy train down that hill expecting to be able to back it uphill into the siding. Anyway the extra crew laughed it off and helped us get back in the clear. So we stayed at Livingston for the "whole works" instead of Lamont. After everything had cleared out, we made our way back to Houston without any further difficulty just before the hog law got us. However, we had to leave our train in the east yards and make a run for it to the roundhouse to get under the wire, and that sprint was a struggle since we were tired out and sleepy.

We never heard one word about that cornfield meet on the hillside at Livingston. I'm certain, though, that not a man of the two crews forgot this night's adventure. So in case you are reading this while riding on a Southern Pacific train between Houston, Tex. and Shreveport, La., introduce yourself to the conductor and go up to the engine and introduce yourself to the engineer. They're a fine bunch of good fellows on this pike, and these two guys may be the very same fellows I've been telling you about.



"You mean those guys are from *th-that* committee . . .?"



BAR *Pacifics* have a Pennsy air; power the *Potatoland Special* and Aroostook Flyer

Locomotives of the Bangor & Aroostook

Steam Locomotives

Class	Numbers	Cylinders	Drivers	Pressure	Engine Weight	Tractive Effort	Builder and Date
		0-8-0 (Switcher) Type					
S-A	330	25 x 28	51	185	217,000	54,000	Alco, 1928
S-1A	340, 341	25 x 28	52	210	245,000	60,000	Alco, 1931
S-2A	335, 337, 338	25 x 28	52	175	221,000	50,060	Alco, 1922
		2-8-0 (Consolidation) Type					
G-A	170, 172	23 x 30	57	175	204,100	41,470	Alco, 1907
G-H	181	21¼ x 30	57	225	222,000	45,500	Alco, 1914
G-K	182	21¼ x 30	57	225	223,000	45,500	Alco, 1914
G-L	183	21¼ x 30	57	225	219,300	45,600	Alco, 1914
G-M	184	21¼ x 30	57	225	222,000	45,500	Alco, 1914
G-G	185	21¼ x 30	57	225	226,000	61,700*	Alco, 1916
G-J	186, 188–191	23 x 30	57	190	212,000	45,000	Alco, 1921
G-P	193	23 x 30	57	190	223,000	45,000	Alco, 1924
G-Q	194	21¼ x 30	57	225	228,200	45,500	Alco, 1924
G-O	192, 195	23 x 30	57	190	215,000	45,000	Alco, 1924
G1-A	196	24 x 30	61	200	219,400	48,200	Baldwin, 1913
G2-A	400–404	22¼ x 30	63	225	238,800	45,200	Alco, 1937
G2-B	405	22¼ x 30	63	225	240,300	45,200	Alco, 1945
		4-6-0 (10-Wheeler) Type					
D-1H	55, 66	20 x 26	63	180	144,500	25,380	Alco, 1902
D-1C	65	20 x 26	63	180	144,500	25,380	Alco, 1905
D-1D	67	20 x 26	63	180	144,500	25,380	Alco, 1905
D-1E	68	20 x 26	63	180	144,500	25,380	Alco, 1905
D-1F	75	20 x 26	63	180	144,500	25,380	Alco, 1905
D-2A	85	20 x 26	63	180	144,500	25,380	Alco, 1907
D-3A	90, 91	20 x 26	63	200	165,100	28,200	Alco, 1911
D-3B	93	20 x 26	63	200	164,600	28,200	Alco, 1911
D-3G	92	19½ x 26	69	225	180,000	27,500	Alco, 1911
D-3D	94	20 x 26	63	200	165,500	28,200	Alco, 1911
D-3H	95	20 x 26	63	200	165,500	28,200	Alco, 1911
E-A	141, 142	22½ x 26	63	175	184,300	31,080	Alco, 1906
C-1A	242	19½ x 26	69	200	162,600	24,400	Alco, 1902
C-1B	243	19½ x 26	69	200	162,600	24,400	Alco, 1907
		4-6-2 (Pacific) Type					
F-A	250	21 x 28	69	210	237,000	32,000	Alco, 1927
F-B	251, 253, 254	21 x 28	69	210	237,000	32,000	Alco, 1927

4-8-2 (Mountain) Type

M-A	100	22½ x 30	63	240	315,300	60,200	Alco, 1929
M-B	101, 102	22½ x 30	63	240	317,490	60,200	Alco, 1929
M-C	104	22½ x 30	63	240	317,490	60,200	Alco, 1930
M-D	103	22½ x 30	63	240	315,300	60,200	Alco, 1929
M-G	105	22½ x 30	63	240	317,490	60,200	Alco, 1930
M-H	106	22½ x 30	63	240	315,300	60,200	Alco, 1930
M-I	107,108	22½ x 30	63	240	315,300	60,200	Alco, 1935
M-J	109	22½ x 30	63	240	319,500	61,100	Alco, 1945

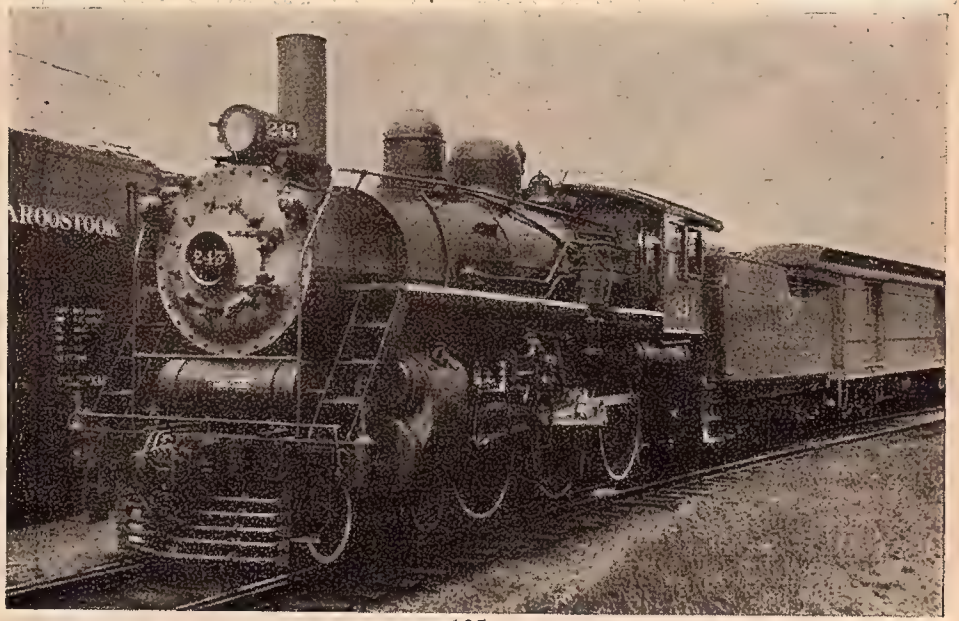
Diesel Locomotives

Class	Numbers	Drivers	Horsepower	Engine Weight	Tractive Effort	Builder and Date
			(Switcher) Type			
L	800–804	40	1000	245,800	60,620	EMD, 1949
			"A" Unit (Road) Type			
H-A	500A–503A	40	1500	233,700	57,050	EMD, 1947
H-B	504A, 505A	40	1500	231,475	56,490	EMD, 1948
H-C	506A, 507A	40	1500	241,065	58,050	EMD, 1948
	700	36	2000	319,880	51,860	EMD, 1949
	701	36	2000	319,520	51,800	EMD, 1949
	550†	40	1500	246,440	60,260	EMD, 1949
	551	40	1500	245,200	59,950	EMD, 1949
	552	40	1500	246,330	60,230	EMD, 1949
	553	40	1500	246,610	60,300	EMD, 1949
	554	40	1500	245,930	60,130	EMD, 1949
	555	40	1500	246,330	60,230	EMD, 1949
	556	40	1500	245,770	60,090	EMD, 1949
	557	40	1500	245,910	60,120	EMD, 1949
			"B" Unit (Road) Type			
H-A	600B, 601B‡	40	1500	226,500	55,345	EMD, 1947
H-B	602B	40	1500	224,900	54,940	EMD, 1948
H-C	603B	40	1500	223,800	54,660	EMD, 1948

**Tractive effort with booster* *‡600 class Diesels are power units only; no controls*
†Diesels 550–557 are branchline engines, designed for multiple operation in connection with 500-class Diesels

No. 12 leaves Greenville for Bangor behind *10-wheeler* 243. High cost of coal has put the Indian sign on many of the road's well-maintained steam units

R. H. Buck *Rail Photo Service*



TEST RUN

By WILLIAM J. PARRY

THE CIRCULAR rim of the brass bedstead took on a harder look as the sky paled at the first hint of dawn. But Chuck Evans required no more light than that seeping through the open window to make out his new striped blue overalls, the leather gauntlets and blue visored cap laid out on the chair beside him. And he needed only the first warning note of the alarm to send him tumbling out from beneath the covers.

Before the full jingle of the alarm died away, Chuck was wide awake. He had the same excited feeling that occasionally gripped him when he was a youngster—like waking up on his birthday or on Christmas morning, knowing something momentous was about to happen. Chuck was twenty-nine now, but the years hadn't changed him much. He still had the same instinct for excitement; he knew this was to be a big day.

Chuck Evans was a fireman. He had graduated from Canadian Eastern yard

Racing with effortless ease, the 5700 wheeled the test train through Pickering in a whirl of dust

engines to drag freights and then to the hotshots. Today, he was to shove coal into the maw of the CE's new extra-fare streamliner. This, he knew, would be the final test of his ability. Brasshats allowed no sentiment to enter into promotion; he stood on his own, even though he was Pop Evans' boy. Behind passenger crews are freight crews, hungrily awaiting their turn; behind them, hungrier still, are the men assigned to yard service. Chuck would have to prove himself better than all these, or he'd move down from the speedliner class.

Dressing hurriedly, Chuck tried to drive these thoughts—and worries—out of his mind. Today was just one more day, like yesterday. He'd do his best and that was all. What if he did muff this chance? There would be others. Suddenly he found himself remembering his mother's words on that other big day in his life—the day the crew dispatcher had chalked his name on the fireman's extra board.

"I'm not the one to stop you from working for the railroad, Chuck," Ma Evans had said, "if that's the life you want. But you're young and still uncertain, and with your Dad gone you're the only one I have left. There are other jobs not so risky that would give you a much better home life."

There were other jobs, sure. But they were not for Chuck. Railroading was in his blood, and today the world was his oyster. If—and it was a mighty important *if*—he qualified for the extra-fare train, he was going to ask Evelyn Morgan the all-important question.

Upstairs other alarms had been ringing. The house had many rooms, and Ma Evans had taken in boarders since the day after Pop had turned over with his engine on the Kingston curve. Mom didn't need to, Chuck argued, but he knew of course that she'd never stop. She said it was something for her to do, to help her forget what the railroad had taken away from her. Perhaps, thought Chuck, once he and Evelyn were married and had a family those bad memories of hers would fade.

His mind filled with plans for Evelyn and himself, Chuck ambled down the hall for a quick wash. Unfortunately the first person he encountered was Johnny Montcrief, a big, rawboned, red-headed guy, with a high opinion of his ability as a fireman and as a rival for Evelyn. He'd been rooming at the Evans house only a month, but Chuck's mother was already worrying about the crowd he ran around with.

Johnny's friends and what he did in his spare time were none of Chuck's business—and young Evans made that clear. It was different, however, when he started trying to date Evelyn Morgan. The locomotive foreman's stenographer was wise in things pertaining to the railroad, and she evidently understood Johnny well enough. Still the newcomer had a smooth easy way with women. Chuck's grayish-blue eyes grew worried whenever he saw Johnny near his girl, and boarding as they all did together, it was impossible to prevent frequent meetings.

"Well, how's our young fireman on the day of his big test?" Johnny said, clapping Evans on the shoulder. "You look rather gloomy. Not wondering whether you'll fall down on the job, are you?"

Chuck felt anger rise up in him. "I won't fall down," he retorted, trying to check his temper since he knew what satisfaction Johnny got out of baiting him.

Montcrief shook his head. "So you think. You've never fired a highspeed varnished job. It's different from firing freight. One bull, and you're all washed up."

"Maybe I'm quick to catch on," Chuck replied quietly.

"Yeah? You ain't had the experience. You've got to be better than good, and our road foreman is plenty tough! He'll be riding with you today, you know." The redhead grinned. "Five bucks says Morrison turns you in."

"Better save your folding money," said Chuck, and turned on his heel heading back toward his own room.

NO ONE had to tell Chuck Evans that he was faced with a tough assignment. It was the year 1938, and the Canadian Western was going all out to grab the lush passenger traffic between Toronto and Montreal by introducing the world's fastest trains for that distance. Canadian Eastern's reply to this challenge was the inauguration of a competing train, and so the race was on. Running time for the CE speedster called for better than a mile-a-minute average for the 333-mile run, including stops.

Chuck knew he had to make good. He'd been marked up for the test run to see whether such a schedule was practical, yet the brasshats had decided the time *had* to be made. There was so much at stake! Aside from the official significance, Chuck had a more personal interest: he had to succeed both for Mom and Evelyn.

When Chuck went downstairs, he found Bob Anderson in the kitchen drinking his morning coffee. Bob was a tall, wizened-up engineer, who loved nothing better than to recount the stirring days of link-and-pin couplings. Since Bob had retired, however, the other boarders just kidded him; the oldtimer had little chance to reminisce. Now he only grunted when Chuck, slipping into his seat at the table, asked pleasantly, "How yer doing, Pop?"

Without waiting for a reply Chuck plowed into the bowl of mush and then the bacon and eggs, which his mother set

before him. It was pathetic, he was thinking, how she had changed since John Evans had gone. Years ago she had smiling blue eyes, and used to laugh a lot. She was tolerant, easy to live with, a woman content to let things slide along. Now it seemed as if she had to get things done, to do things in a hurry.

Chuck suddenly paused. "Mom, don't you get tired of this boarding-house racket?"

"Tired?" she repeated. "I've never stopped to think!"

Just then Evelyn Morgan and Johnny Montcrief came down the stairs. Chuck gave a quick glance upwards, as he heard their laughter and a scuffle of feet. Evelyn entered the kitchen first, Montcrief behind her. He held one of her hands and she was struggling a little to get away from him—but not too hard.

This was the first time that Chuck had seen the big fireman touch Evelyn. Something inside him welled up. When Evelyn said, "Hi, Chuck!" his answer was as enthusiastic a grunt as Bob Anderson's greeting to him had been a few minutes earlier.

Evelyn Morgan was tall and slim. Her hair had a reddish hue, and her dark eyes were gentle as they looked upon Chuck. Never one to play to the gallery, she attracted attention in spite of herself; her trim figure brought admiring glances from the roundhouse gang, and not a few whistles. Sitting down across from Evans now, she teased, "Not talking, Chuck?"

Johnny Montcrief had seated himself, too. "That's not Chuck, Miss Morgan," he offered, with studied insolence. "Meet Mister Evans, crack passenger tallowpot. Haven't you heard? He's firing the test train today!"

"Oh, I get it!" she chuckled. "Not in our class. Well, I hope he doesn't let the Canadian Eastern down."

Chuck was still burning up from the way the red-headed fireman had handled Evelyn. "If I fall down with the test train, maybe they'll wire for Montcrief!" he said nastily. "Or maybe I'll have to get me a job pounding a typewriter!"

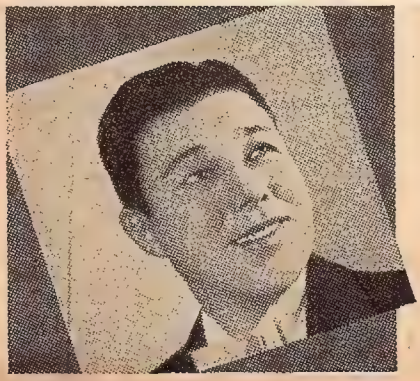
Evelyn turned crimson. There was a tense silence broken only when Ma Evans crossed the room quickly with her son's lunch bucket. "Chuck you'd better take this and get started!"

Chuck rose from the table slowly feeling a trifle foolish. Half-apologetically he looked at Evelyn, who watched his movements with a cool stare. Montcrief was smiling rather patronizingly. Grabbing his lunch, Chuck went striding down the hall.

Before he reached the front door, Evelyn caught up with him. Grabbing his free arm, she spun him around. "What's got into you this morning?" she whispered. "Worried about the test run?"

Chuck relented. "That and something else," he muttered, mastering a half-hearted grin.

"You'll come through okay," said Evelyn. "Confidentially, you'd better, chum! I've taken up Montcrief's five dollars, and I don't want to pay off." She laughed.



"Fit for a King"

says GEO. McQUEEN

NEW ORLEANS, La.—"That's why *I* switched to Calvert," says this popular singer. "And I'll warble praises for its milder, mellower taste *any* day. Calvert is truly the monarch of them all!"

CALVERT RESERVE BLENDED WHISKEY—86.8 PROOF—65% GRAIN NEUTRAL SPIRITS. CALVERT DISTILLERS CORP., NEW YORK CITY

"Make good for me, Chuck, that's all."

Chuck Evans headed towards the roundhouse. Within him was a feeling of deep satisfaction.

IF YOU'VE never been inside the cab of a modern highspeed locomotive then you've missed something big. It's not only the size of the powerful boiler and the steel cab, the immense driving wheels, the gentle hiss of live, pent-up steam, the gages that tell the engine crew all that they must know, it's how all this makes you feel deep inside—proud that you have control of this costly machine, that the touch of your hand on the multiple throttle can send this giant hurtling along the rails at speeds of better than eighty miles an hour. This sense of power is what gets into a man's blood; it's the attraction that makes accompanying danger a small price to pay for daily adventure.

Checking over and blowing out the stoker jets to see that none are plugged, testing the exhaust steam injector, building up the firebed so that no holes or banks will cool the firebox temperature, checking the lubricators, the flagging equipment, signing the register to assert that in every way you are fit for duty and familiar with the route over which you are to take the train—this uses up the thirty minutes engine crews are allowed to get their machines ready. The procedure is routine; as a rule no engineer or fireman thinks twice about it. Today was one exception, however, as far as Chuck Evans and his engineer, Tommy Lawton, were concerned—each wanted to be doubly certain of the engine. Finally it was time to pick their consist.

Maybe you've wondered how an engine crew feels when backing its engine off the roundhouse track up to the trainshed. On a special run there is often a tenseness in the cab which neither man tries to conceal. In this case being chief actors in a drama of railroading that was about to make history on the high iron between the great cities of Toronto and Montreal, put both men on their toes. Should they encounter any difficulty, they mustn't hesitate. No excuse will be acceptable for delaying this hotshot.

Tommy Lawton was setting up the brakes for the standing test when Foreman Morrison barged into the cab. For a brief moment Chuck studied the newcomer and his heart sank. The massive, square-cut features of the official were set in a grim mould; the iron-gray hair and the bushy eyebrows were those of a martinet—a hard, efficient man. In contrast, he thought he saw a gleam of kindliness and understanding—of sympathy—in the appearance of Engineer Lawton

Obviously nervous, Chuck opened the jet valves and watched the hands on the pressure gage climb to thirty-five pounds. Thirty-five ought to do the trick, he told himself, mindful of the fact that it's good policy to start with low pressure. A low pressure can be raised to blow the crushed coal to all parts of the firebed, but a jet pressure too high plugs the fire under the brick arch, resulting in plenty of grief. And as Fireman Montcrief had warned him, "One slip-up and you'll be all washed up, Chuck."

Morrison's mouth set into a thin, hard line. The thick eyebrows drew together as he watched the crew's movements, but he made no comment. Presently the car examiner ambled up to the gangway with the information that the train consisted of nine cars, and all airbrakes were working. Lawton unfolded his long legs from beneath the brake-valve pedestal and crossed the cab.

"How come, buddy, we get nine cars?" he demanded. "This train is supposed to be limited to eight."

The car tonk had no explanation but just then the conductor showed up. Coming along with the clearance and to compare watches, he heard the engineer's grief. "We got a private car on the tail end, Tommy," he admitted. "We're loaded with brasshats, so handle 'em easy."

"A carload of brass, eh!" Lawson exploded. "Well, they'll get the same service as the revenue passengers, brother, and no more. And if you ask me..."

"Go along, Tommy," said Leary, with a swift look toward Morrison. "We all know they picked you for your heavy hand so don't waste words giving us a rough time. I'm back there, too. Now let's get going. What time have you?"

The three men in the cab compared watches with Conductor Leary and resumed their seats in silence. Impatiently they waited while the skipper returned to his post back among the Pullmans. All they could do was stand by: without a signal from Leary they had no authority to start them rolling.

Suddenly it came. The shrill *peep! peep!* of the air whistle echoed through the cab. The gloved hand gripping the handle of the multiple throttle jerked backward and steam under pressure of 275 pounds surged into the cylinders. Crossheads and rods synchronized in movement; the exhaust rumbled from the squat stack, as the 80-inch drivers slipped, spun madly for a moment and then feeling the sand beneath their flanges, got a firmer grip on the rails. The big 4-8-4, trailing her string of varnish, rolled majestically out of the trainshed, starting her relentless race with a timecard schedule.

THREADING its way through the yellow and green lights of the interlocking plant, the test train gathered momentum as the locomotive swung into her stride. Faster, ever faster. The thrum of the massive drivers gave place to a roar as the engine went all out for the hard climb up to Scaboro Junction. The steam-gage pointer hovered uncertainly on the 275 mark and Chuck slid off his seatbox. Swinging open the dust doors, he grabbed the shovel and swung scoopful after scoopful of black diamonds into the back corners of the firebox.

Conscious of his fireman's uneasiness, the engineer eased the throttle a notch. The savage bark of the exhaust was tearing the firebed to pieces. For some reason, the fire was not burning right. Chuck saw thick black smoke rolling down from the stack, but he couldn't figure out why he had poor combustion. Whatever was crowding Chuck began to rattle him, and then quite suddenly he knew his trouble. It was the roar and clamor of a giant locomotive being worked to full capacity. Only those who have endured such a racket realize how it shakes an engine crew's nerves.

To make matters worse, the road foreman kept getting off his seat to stand behind Chuck—breathing down your neck, railroadmen call it. Any fireman would get nervous if an official did that.

Morrison tapped Chuck on the shoulder. "Raise the jet pressure!" he bellowed. He had to shout to make himself heard above the noise.

Against his better judgment, Chuck boosted the jet pressure. A few more scoopfuls in the back corners would have solved his problem, but he was on edge and willing to try anything the official suggested. It was to no good purpose. The test train rolled through the junction with the steam gage hovering uncertainly around the 250 mark, and they were five minutes behind schedule.

Topping the grade the big 4-8-4 began to show her paces, despite the drop in pressure. Down to Port Union she roared, plunging in giddy flight. The air, cooled by a speed-made wind, rushed through the open cab windows, lashing the faces of the crew. The curve at the end of the long grade rushed up the valley to meet them. Lake Ontario was beneath the rocking cab and through Chuck's mind swam all manner of misgivings—his Dad had turned over on such a curve. It did not seem possible to his tortured mind that the rails could stand the strain their train would exert as it took the bend.

Chuck's hand, gripping the stoker-engine valve, twitched. He wanted to shout across the cab to Lawton to cut her down. But the impulse died as he glimpsed Tommy's gloved hand resting nonchalantly on the brake valve. The curve was there, a train-length beyond. Again he felt a need to bellow for reduced speed. But he drew a quick intake of breath as the 5700 rolled easily to the elevation, and then with a grinding of the vestibule cab slides, she

was around and straightening out on the tangent.

Engineer Lawton glanced across the cab and grinned. Chuck smiled in return. It seemed as though he was so weary from strain and effort already—with miles still to go—that he must have cracked had he not smiled.

Racing along with effortless ease, the 5700 rocketed through Pickering Station. A rush, a roar, an eddy of swirling dust, and the test train was through. Glancing apprehensively at the steam gage, Chuck could hardly believe his eyes: the pressure was actually climbing. He began to breathe easier watching its progress upward. It moved so slowly that its motion was almost imperceptible, but still the steam pressure was rising. As his nervousness began to slip away, Chuck thought of Evelyn. "You'll come through okay," she had said. "You'd better, chum!" Well, she wouldn't have to pay off, he promised himself. Confidence within him was mounting.

The steam pressure was almost back to the 275 mark as Whitby Station sprang up through the haze, seemed to pause for dizzy second and then receded into the background. Engineer Lawton had a reputation for getting more work out of an engine with less effort than any other man on the district. And Tommy was certainly living up to it.

Oshawa was next, the first stop for water, passengers and express. Minutes later Engineer Lawton braked the 5700 to a smooth stop at the water plug, and Chuck clambered out on the big Vanderbilt tank. He had hardly time to fill it, before the engineer started the bell ringing. Throwing up the crane, Chuck clambered back into the cab again as his train pulled out for Port Hope, a flagstop.

RETURNING to the cab Chuck found the road foreman sweating and puffing as he stabbed the bank of green coal under the brick arch with the fireman's long hook. Morrison scowled at Chuck. "Pretty ragged fire, you have here," he commented. "You'll have to do better than that if you hope to stay on this run!"

There are times when a fireman should be listening and not talking—but Chuck talked. "It was your idea to raise the jet pressure, not mine," he retorted. "I can handle this job. Give me time—"

"Time!" the foreman broke in. "We're behind time now! The place you need more time is—"

Morrison had no chance to finish. He was interrupted by a sudden shout from Lawton, who motioned the foreman for help. The official crossed the cab. The pipe connection to the air whistle had uncoupled and the engineer required assistance to couple the pipe. Traveling at that speed, the air whistle is much more effective than steam when it comes to blasting for highway crossings.

By the time the two older men had the pipe connected and the air whistle working again, Chuck had cooled off and had the 5700's safety valve popping. The road foreman had not finished his sentence, yet Chuck knew the brasshat would complete it unless he could manage to keep the steam pressure steady—and he was certain what the end would be. "The place you need more time is on a yard engine!" Chuck would be through with mainline highspeed trains.

Mile after mile slid backwards beneath the flying wheels. The cab deck quivered as the big 4-8-4 rolled at a drunken angle to the elevated curves. Still the engineer never gave a sign of easing the throttle. He kept after her, getting every pound of work out of the superheated steam in the race against a timecard schedule and his railroad timepiece. Had Lawton hesitated an instant Chuck knew they must lose; arriving on time was still within the hogger's power, granted of course that his fireman didn't delay him further.

Bowmanville, Newcastle—the station buildings sprang up out of the fast-gathering dusk, the platforms a blur beneath the swaying, weaving cab. Tired eyes riveted on steam and water levels, Chuck manipulated the stoker valve. The exhaust-steam injector was barely holding

the water at two gages; if the steam pressure lagged now, Chuck was licked. He knew without being told that the lost time would be charged to him should the engineer fail to make it up.

The emerald green light of the train-order signal at Port Hope came rapidly into their line of vision. High above the station roof it blinked its welcome, closing in with a rush as the headlight's beam picked up the platform. This was a flag-stop and the conductor had given no whistle signal to halt. If the operator flung them the high sign, they could keep the train rolling and maybe pick up a couple of those lost minutes.

Leaning far out of the cab window, Chuck almost lost his cap. His keen eyes picked up the shadowy figure on the platform as a lantern twirled in a familiar highball. "Let her go, Tommy!" he yelled across the cab. Kicking the brakeshoes free from the screaming flanges, the engineer jerked the throttle out to the working notch. Tommy Lawton was going to bring her in on time providing that Chuck could give him the steam.

Two miles west of Coburg, it happened. The iron fireman, as if protesting against the inhuman pace, decided to quit cold. Some obstruction had dropped into the trough of the conveyor screw and was holding it fast. Through Chuck yanked and shoved frantically at the reversing lever, it was to no avail. The conveyor refused to turn. No coal came up to the distributing plate in the firebox.

The throbbing roar of a fast train died away as the 5700 breezed through the station. The flickering pistons, side rods and racing drivers were losing speed rapidly, as the steam pressure dropped. Hastily slamming open the dust doors of the vestibule cab, Chuck jabbed the scoop into the dusty coal and went to work on the dying embers of his firebed. Recalling with bitterness what home would be like the following night—how Montcrief would grin and Evelyn would have to pay off her bet—he glowered at the tumbling steam-gage pointer. The problem had resolved itself into a grim struggle between this mechanical tyrant and himself.

CHUCK'S DIFFICULTY was to heave sufficient coal onto the grates to keep the fire alive without smothering the light, almost dead fire. As any fireman will tell you, this is quite a chore. Bigger men than Chuck had cracked up under the heart-breaking, back-breaking task of hand-firing a stoker engine; but few had been in so tough a spot. The long stretch of smooth track in front of them, however, was a break. It would help him maintain his balance on the vibrating deck, as he labored to build up the fire.

Working like a boiler washer, Chuck bent grimly to his task. Tommy Lawton, cooperating with his fireman, eased the throttle to the drifting notch and turned off the exhaust-steam injector. Trading water for steam may belong to the past, but it still goes in emergencies.

Patches of sweat spread across Chuck's blue overalls before his prodigious efforts

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began to show results. Brawn isn't everything in hand firing: knowing the tricks is what counts. And Chuck knew the tricks of his business far better than most men on the Oshawa Subdivision.

The road foreman leaned forward, tapped Chuck on the shoulder and nodded approvingly as the steam-gage pointer paused in its downward flight, hesitated for a moment, then started an upward climb. That gesture—from an official—gave Chuck quite a lift. Legs braced wide on the rumbling deck, he wiped the perspiration from his eyes, then hoisted the water can to his lips. His mouth was hot, this throat dry. When he swallowed, the water seemed to stay in his throat.

Belleville seemed miles away; endless miles away. Engineer Lawton was letting his engine out very fast. Soon the bark of the exhaust of the big machine had deepened to a full-throated roar as the throttle came back again to the working notch. But the fast-tiring fireman made no protest. He understood the compulsion

Desperate when the stoker quit, Chuck grabbed his scoop and turned grimly to hand-firing the big *Northern*.

of that inner force as well as Lawton did. Engine failures can be explained, but not stoker failures. He and Lawton had to bring the test train in. Besides, he himself was determined not to fail Evelyn.

Flashes of orange and red lit up the heavens as, swinging doggedly between firebox door and the coal gates, Chuck forced the steam pressure back to the 275 mark. But when he lifted his face to the steam gage, water drained from the creases of physical agony there. Hand firing at high speed was fast taking its toll: the lurch on lurch along the tangent, the sudden roll to the elevation and shock of the curve, the thunder of the pounding engine, above all, the savagery of the exhaust. It was a battle of skill and human endurance against time.

Reeling off a mile in forty seconds, the 5700 was making a game bid to catch up with the timecard. Lawton watched his fireman grimly, obviously wondering if Chuck would hold out. The engineer would help all he could. All the skill and knowledge acquired in forty years' service was forcing the big 4-8-4 to her limit.

The lights of a station leaped out of the darkness ahead. It was Brighton. The station walls caught the roar of the exhaust, the metallic clamor of the whirring side rods and the raucous note of the whistle, flinging them back in maddening confusion. Chuck straightened wearily as the engine rocketed through. He was afraid he couldn't stand up much longer. Swinging on his feet mechanically, his breath coming in quick short gasps, he struggled to hold the steam pressure steady. He had to keep going. A few more miles and he had the job licked.

They were coming into Trenton. Five miles and they'd pull into Belleville, the end of their division. As the test train sped through the junction, the three men in the cab checked their watches and regarded one another; these three had turned their backs on the meaning of time, except as regarding this one run. Now they knew they had won. The engineer and fireman had brought the test train in on time and another crew must take its chances maintaining this record.

After any special run, an engine crew will probably remember only a few details of the trip—at least until days or months have passed and the run itself is history. Relief floods in upon the tired men whose thoughts focus upon home and a good night's rest. Chuck, his features blackened with grime except where sweat had coursed down his face in tiny rivulets, climbed stiffly down the cab ladder, followed by Morrison. The latter's hard face was set in a queer look. Before the foreman had a chance to say anything, however, an official hurried up.

"What happened back there at Coburg?" the brasshat demanded. "We must have lost five minutes before you caught onto yourselves. Can't risk this train to that sort of running."

Morrison stiffened immediately. While Chuck and Lawton watched, wondering what would happen, the foreman underwent a swift change of mind and when he spoke it had a forced air of carelessness. "Something got lodged in the stoker," he replied. "I'll have the shop staff check on it first thing. A break like that might have thrown us for a dead loss." He stopped a moment. "Looks like we've got the right man for the firing end of this job," he added, with a signficant glance towards the official. "His name's Evans, Fireman Evans."

The official said something that Chuck didn't hear. He couldn't have. Already he had returned home and was listening to himself telling Mom and Evelyn the news. They were both smiling, while Evelyn counted out the number of things she could buy with her five-dollar winnings. Suddenly their faces faded. Chuck came to as Tommy Lawton clapped him on the back and reached out a big paw to congratulate him.

Startled, Chuck shook off his preoccupation and returned Tommy's grin with a smile that started way down inside him. It's queer, he thought, what happens to a guy's thinking apparatus when something turns out exactly the way he had dreamed it would.

New Publications

Oil Lamps and Iron Ponies, by Frederic Shaw, Clement Fisher Jr. and George H. Harlan, decorations by E. S. Hammack and maps and lettering by Frederic Shaw, 187 pages, illustrated with 64 photographs, 8 maps and scale locomotive and steamer drawings; Bay Books Ltd. of San Francisco, San Francisco, Calif.; regular edition, $5; deluxe autographed edition, $7.50.

Narrow Gauge Rails to Portmadoc, by J. I. C. Boyd, 158 pages, 95 photographs, 19 scale locomotive and rolling stock drawings, 2 maps, station layouts; Oakland Press, distributed in America by Owen Davies, 1214 N. La Salle St., Chicago 10, Ill.; $5.

PAYING TRIBUTE to the lilliputian pikes of yesteryear appears to be a most satisfying pastime for railfans both here and abroad, a hobby of which they never tire. Thus it is strange to have the authors of *Oil Lamps and Iron Ponies*—Frederic Shaw, Clement Fisher Jr. and George Harlan—pose the heretical question: "why (write of) narrow gages?" Why not must be the reply of thousands who are well aware of the gallant struggles these pint-sized carriers made to bring the interior wealth of mines, forests and farms out to industrial regions anxiously awaiting the loads. The fact that these two- and three-foot widths of iron rails and wooden ties satisfied a craving for adventure, contributed to employment and, generally speaking, made money for their investors—is reason enough why railroad men today seek escape from the ruthless efficiency of standardization and abandonments in reliving the narrow-gage glory days.

But if in their brief foreword the abovementioned writers imply a lack of respect for the narrow gages, they soon correct this false impression. Starting with Old Man Kidder's Nevada County Narrow Gauge, they recreate through documents, roundhouse lore and photographs life-size portraits of eight of the leading narrow-gage lines built out in California, Oregon and Washington during the 1870s and '80s. Focusing mainly upon the topography that demanded light, low-cost roadbeds and tiny engines that would be surefooted on sharp curves and fleet on stiff grades, the authors do not fail to record the influence men like Duane Bliss, David C. Eccles, "Sugar King" Claus Spreckles and L. A. Loomis had on the growth of transportation empires. Neither do they forget Bill Thomas, mechanical genius who retreated from a supervisory post on the North Pacific Coast to a sim-

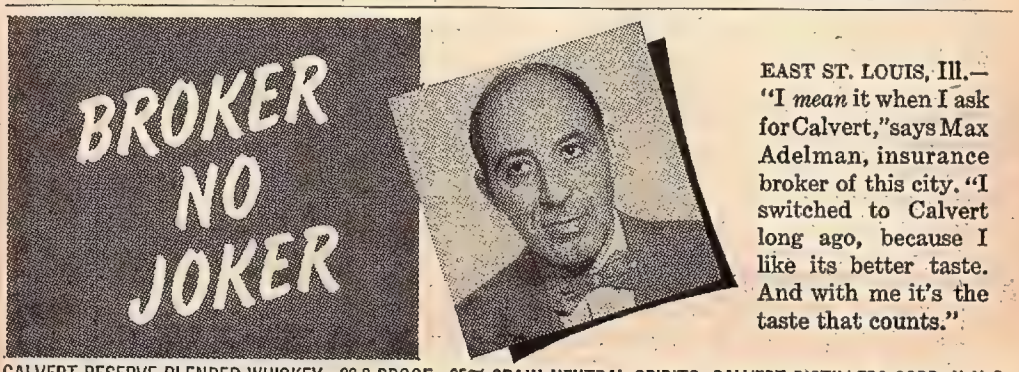
ilar position on the Lake Tahoe Railroad, only to wind up his career on the Mount Tamalpais & Muir Woods when he and the road were retired together in 1930.

The restraint exhibited in presenting these sketches is worthy of comment. Successfully avoided in *Oil Lamps and Iron Ponies* is the overcharged, affected prose that detracted from some earlier short-line histories. Wisely enough, Shaw, Fisher and Harlan allow the narrow gages to argue their own case, and no one can say that the human relationship between on-line communities and the various "stump dodgers" is ignored. Every pike has its anecdotes: how the ladies of Grass Valley decked out a coach with red carpets, polished spittoons, mats and even a silk flag; how W. F. Ham scuttled a Lake Tahoe steamer one night to spare her from a wrecker's torch; how an old Spaniard located the body of Joe Sabine from the bottoms of Austin Creek not far from Cazadero by balancing a candle on a shingle and setting it adrift. And if Grass Valley and Cazadero are unfamiliar names, this volume will fix them on the map for you: Frederic Shaw has drawn a route map and profile graph to accompany each line featured. The only thing of note that is missing is an index.

Narrow Gauge Rails to Portmadoc is Britain's salute to the Festiniog Railway, the Welch two-footer that taught the entire world the economy of narrow-gage operation. Opened for traffic in 1836, Festiniog Railway was powered by horses at first but in 1863 produced the first successfully designed miniature steam engine. While Robert Stephenson and other eminent engineers thundered against the narrow-gage, lightweight pikes and engines, in 1869 Festiniog utilized its right-of-way as a testing grounds for Fairlie's pioneering double-boilered locomotive. The latter worked so well during exhaustive trials on Wales' broken terrain that orders were promptly placed; when the road was abandoned in August, 1946, some of these 1869 models were still in running condition. Festiniog's development has special meaning for American railroaders since it was Festiniog and the Fairlie engine that were responsible for Gen. Wm. Palmer's decision to build the narrow-gage Denver & Rio Grande Railway.

Yet despite motive-power advances, extension of branch lines to new industrial centers, improved harbor facilities and the eventual merging of feeder roads, the network of narrow gages in North Wales—in which Festiniog was the leader—lost a battle against faltering revenues. Basically they were mine roads. So when slate quarries closed down and remained inactive, it was only a matter of time until passenger schedules were withdrawn and then all service discontinued. Today Croesor Tramway's "rails are turf covered and along the right-of-way stumps show where once there was a line of telegraph poles." The Welch Highland Railway, a 20th century attempt to unify and extend traffic across the feeder lines, is no more.

Author James Boyd makes a plea for the preservation of the Festiniog Railway.



EAST ST. LOUIS, Ill.—"I *mean* it when I ask for Calvert," says Max Adelman, insurance broker of this city. "I switched to Calvert long ago, because I like its better taste. And with me it's the taste that counts."

CALVERT RESERVE BLENDED WHISKEY—86.8 PROOF—65% GRAIN NEUTRAL SPIRITS. CALVERT DISTILLERS CORP., N. Y. C.

While closed to traffic since '46, its roadbed is still intact and its rolling stock and engines more or less safe in storage. Challenging Great Britain's railroads and patrons of railroadiana to take action in preventing the commercial disposal of Festiniog's historic equipment, he feels inspired to pay America a compliment that many historic-minded railroaders may believe open to debate. "In America," he writes, referring to the possible sale of Festiniog rolling stock for scrap metal, "it would not be allowed to occur, but we are a slow moving people, museums are full and so many are uninterested." E.K.

❖

Narrow Gauge Railways in America, by Howard Fleming, originally published in 1875, edited by Grahame Hardy and Paul Darrell, including 1871-1949 list of narrow-gage railways by Brian Thompson, decorations by E. S. Hammack; Grahame Hardy publication, Oakland, Calif.; regular edition, $5, deluxe edition $7.50.

FIVE YEARS after ground had been broken for the first narrow-gage railway in America—the Denver & Rio Grande—Howard Fleming wrote a book which proported to be the first "history of the rise, progress and success of the narrow-gage railway in America." Seventy-three years have passed since its publication, during which time his *Narrow Gauge Railways in America* has become recognized as the bible of the industry. Reprinted by Grahame Hardy, this volume now records both the rise and fall of the three-footer. For as a supplementary directory of all roads in operation between 1871 and 1949 shows the great majority of these pikes have been standard-gaged or abandoned or both.

On the score of technical information, such as descriptions of the narrow-gage locomotives, passenger cars and freighters of every type and size, there is little that can be added to Fleming's wealth of material. Fleming's text also includes a chapter in which he expounds his belief in the inherent economy of lightweight rails and equipment, a theory he backs up with actual records of standard- and narrow-gage construction expenses. Viewing his claims today it is rather ironic to have Fleming quoting such men as J. Edgar Thomson to prove that the narrow gages "will be a power in the land!"

They were. But as Brian Thompson lists prove, that day is gone a long time. Gone too are many of the small-town populations in the U. S. and Canada for which the narrow gages were primarily responsible. Yet with men like Beebe, Darrell, Hardy, Thompson—all of whom are represented herein—to say nothing of Fleming himself to perpetuate their histories, these tiny pikes will not be soon forgotten.

❖

The First Five Years of the Railroad Era in Colorado, by E. O. Davis, 214 pages, 2 maps; Sage Books Inc., 1716 View Point Rd., Golden 4, Colo.; $3.

THE YEARS 1867 to 1872 have been referred to as the most crucial period in the growth of the American railroads. During this five-year span the first transcontinental railroad was completed, thousands of additional miles were surveyed and chartered, as our entire nation—especially the western states—was struck down by railroad fever. There is a good deal of rhubarb today about the Government's unnecessary interference in the industry's affairs, in the form of ICC regulations, exorbitant taxes and fact-finding boards to investigate labor disputes. But almost forgotten is the fact that 80 years ago managements themselves courted the paternalistic attitude of Congress. As a result they received from the Government such tokens of affection as land grants, army-staff survey parties and sometimes even contributions to their construction kitties.

Indebted to Washington for financial support, the railroads maintained nevertheless the right to choose—within fixed limits—just where they would lay their tracks. And there must have been times

that they regrette dhis bargain. Instead of making it easy for company engineers to select the most feasible and economical right-of-way, this freedom of choice subjected road officials to political and economic pressure from every state and city that might conceivably be involved. The disappointed bidders for mainline positions were not often forgiving, either; they set up rival lines and had to be bought out for a price, if not always at a profit.

One of the states least reconciled to a place on a branch line of America's first transcontinental carrier was Colorado. In 1867, following Union Pacific's decision to bypass Colorado for a leveler grade through Cheyenne, Wyo., the territory's settlers began agitating for a series of railways that would direct the flow of commerce through their region. So by 1870 construction gangs had laid down the Denver Pacific, Kansas Pacific, Colorado Central and Boulder Valley, providing Colorado with through service east and west with branches which the UP later merged in its vast network. The settlers could rest content: Indians might ravage their settlements, towns like Julesburg might be burned, raided and abandoned; with the railroad close at hand, the frontier could always be rebuilt.

The First Five Years of the Railroad Era in Colorado records this tumultuous chapter of history in diary form. E. O. Davis credits innumerable sources, one a day-by-day account kept by UP Engineer Leonard H. Eichlotz. Advancing from town to town with Colorado's early rail promoters, the author pictures the land then and now: "Ione (Population O) The Denver Pacific reached what is now a phone booth about 3 o'clock on the afternoon of May 30, 1870." Somewhat repetitious, this book—which includes some material never before widely published—will help anyone engaged in research.

❖

Railway Signalling, by Maxwell Taylor, 84 pages, 19 photographs and 18 diagrams; distributed in U.S. by MacDonald & Co., 37 Madison Ave., New York 10, N.Y.; $1.

THE SIGNALMAN is not a romantic figure. Seen from train or platform, he usually appears as a rather bored, slow-moving individual, invariably in shirt-sleeves, with an open, brass-buttoned waistcoat. In the event of a railway accident the publicity subsequently given to it usually leaves the casual reader with the impression that a signalman has either left undone something he ought to have done or done something he ought not to have done. An accident nearly always produces a hero, but it is seldom the signalman."

If obscurity has been the lot of the signalman—and it appears it has been—then Maxwell Taylor is doing his journalistic best to remedy this injustice. Not a signalman in England, Canada, U.S. or anywhere else can help but feel that the weight of efficient railroading rests a bit heavier upon his shoulders after perusing this short volume. He may pick up some fancy figures to toss at irreverent trainmen, too, if English statistics are acceptable. Of Britain's 195 collisions reported and investigated in 1946, 157 were traceable to train-crew failures, only 38 to signalmen; of 102 derailments, 73 were blamed on train crews, 29 upon signalmen. And lapses in proper signaling were even less frequent than these figures would indicate, says Taylor. The signalmen were unfairly handicapped by dense fogs and a lack of up-to-date equipment.

Fundamentally, however, *Railway Signalling* is intended as a well-documented handbook devoted to the development of signaling from the time-interval system introduced back in the 1840s right down to modern coded cab signals. Approaching this phase of railroading as an outsider—a newspaperman with a keen interest in the intricacies of rail operation—the author explains the complex mechanics of track diagrams, track circuiting and its uses and the like in a style and vocabulary well-adapted to both layman

and railroader. Far from superficial in context, this is a manual everyone can read, enjoy and pick up therein some pertinent comments on modern trends.

Take the question of radar and the railroads. Super-science addicts who intimate that the railroads are ignoring a war-proven boon are overlooking the facts, writes Taylor, that the sea and air "unlike the railways are not avenued with telegraph poles, signal gantries, stations, signal-boxes, rolling stock and moving trains, any and all of which react to an emitted radar impulse and create a picture of indescribable confusion on the radar screen." So while the day may come when railroads will employ radar, he hazards a guess that that day is not yet upon us. Apropos of such technical advances Taylor has this to say. " 'Safety at Any Price' is not a practical slogan."

❖

The Steam Locomotive in Traffic, by E. A. Phillipson, 252 pages, 125 drawings and illustrations, 8 plates; Locomotive Publishing Co. Ltd., 88 Horseferry Rd., London, S.W. 1, England; about $2.50.

FOR SHEER quantity of factual data, *The Steam Locomotive in Traffic* will be hard to beat. Within its 252-odd pages, E. A. Phillipson—a design engineer who speaks with authority founded upon years of experience with the railways of Britain, Egypt, India, Palestine and wartime Germany—crowds remarkable chapters on such topics as departmental organization, layout of locomotive running sheds, shed equipment, water supplies and treatment, storekeeping, shed grades, organization of repair and maintenance work, engine cleaning and failures, breakdown work and equipment, and finally the rostering of engines. Should you think these titles overpowering in themselves, then be prepared to take your reading in small doses. This pretends to give no birds-eye view of the mechanics of steam locomotives: it is a painstaking analysis not only of the engine as such but of the men and machinery needed to keep it ready for the road.

The banker turned brasshat can find here a blueprint for a smooth-running organization. So universal is Phillipson's concept of his subject matter that his ideas are as adaptable to reorganizing a faltering system as to creating a new one. Under fire are the dangers of excessive elaboration of report and filing departments; the hazard of allowing standardization to grow static; the vital need for intelligent labor relations—"the making of unnecessary work to increase overtime, owing to inadequate supervision"; the problem of overstocking—"even with the exercise of great care, overstocking . . . is at times difficult to avoid. Such cases should not be regarded as necessarily calling for disciplinary action . . . which tends to drive trouble underground." And if such references suggest merely a theoretical work, don't be misled. For instance, did you know that the depot superintendent's private office should have a net floor area of about 325 square feet and one door only "with access by a short, straight corridor to the running foremen's and clerks' offices, and to the shed yard"?

It would be impossible to even briefly recount the operations treated in *The Steam Locomotive in Traffic.* Its illustrations are as detailed as its text, and provide a source book for comparing various designs of coaling sheds, water tanks, jigs, hoists and other paraphernalia. Its serviceability is limited only by the fact that it was written prior to World War II, before the Diesel rage. Perhaps conversion in Britain will move more slowly and if so mechanical men will retain their experimental zest for getting the most out of steam engines. In America, however, a comparable book on Diesels would be a more likely choice for railroad's bestseller list.

❖

Singing Rails, by Herbert Pease, 304 pages; Thomas Y. Crowell, 432 Fourth Ave., New York 16, N.Y.; $3.

HERBERT PEASE might be any 17-year-old country boy, who hired out in 1900 as telegrapher at a lonesome sta-

tion north, south, east or west. As it happens he went to work for the Chicago & Alton at Atlanta, Ill., where he replaced an op who had sneaked out of town to avoid a shotgun wedding. Pease took over the night trick without being broken in by the day man, as to the train setup, and without any inkling as to the bodily danger that lay ahead. Yet before morning he came close to being murdered by the injured girl's angry brother; he also received his first instructions in station work from the town constable who was a born railroader.

Between mashing baggage, ducking bullets and delaying trains, Pease was well indoctrinated that night for the years that lay ahead. Unexpected events—like Engineer Trowbridge's sudden death at MacLean, runaways on the line, drifters and jailbirds sharing his supper, eventually the promotion he thought meant the real beginning of his career and instead brought about a quick end—were things he learned gradually to take in stride. Forced by "operator's paralysis" to abandon his hopes of becoming a dispatcher, he turned to a successful career selling tickets. Before he left railroading he was appointed as Missouri Pacific's central passenger agent in Pittsburgh which position he held for seven years.

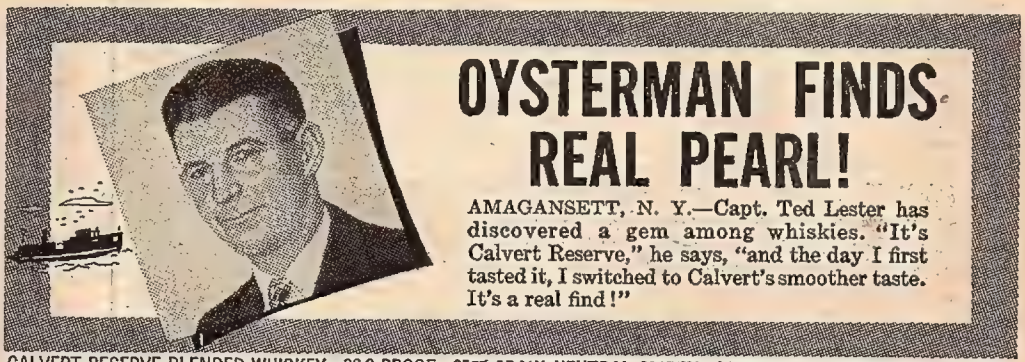
After 22 years spent in trade-association activities in New England, Pease retired to California in 1939. During World War II he returned to active service as a Southern Pacific passenger representative on military trains. As his reminiscences show plainly, this one-time telegrapher never lost his attachment for railroads.

❖

Ambassador on Rails, by David J. Fant, 160 pages; Christian Publications, Inc., 3rd and Reily St., Harrisburg, Pa.; $1.50.

THE LIFE story of David J. Fant, engineer-evangelist on the Southern stretch of track between Atlanta and Greenville, is told with tender feeling by his namesake and minister son. Born in a small South Carolina town—where no one sang of the living being easy—Fant tried his hand at storekeeping, farming and railroading, and quite early in life became conscious of the fact that his railroad career might be put to spiritual advantage. The engineer staked out his missionary field: the 160-mile run that was his regular assignment. Before he retired at 79, after 52 years railroading, Engineer Fant had the satisfaction of knowing that he had made the Bible he carried with him always a living truth among his friends and fellow railroaders.

Possibly there are more people who know of the engine with the brass Bible mounted on her front end than who have heard of David Fant, *Ambassador on Rails.* But those who have admired his work will be interested in this biography, a testament to the sacrifices one man made for his religious beliefs. Incidentally, Fant's railroad career followed the usual pattern, including several narrow escapes from death.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FIDDLETOWN & SOPPEROPOLIS RY.

No. 17 The Fiddletown Depot Resounds with Juvenile Merriment at the Christmas Party for Employes' Children

by Carl Fallberg

On the Spot

ALTHOUGH the Lake Shore & Michigan Southern wreck at Ashtabula, O. occurred as long ago as 1876, oldtime readers of *Railroad Magazine* have sent us some interesting first-hand comments on the *Ashtabula Disaster* article in our Oct. '49 issue.

"About 11 years after the big wreck," writes Capt. Edward Bodette, Sr., 704 Boalt St., Toledo, O., "the Lake Shore road sent me to Ashtabula harbor to assist in dredging a small channel in the creek to the bridge from which the train had plunged. While making the harbor ready for coal and ore boats drawing up to 16 feet of water, we dug up many grim souvenirs of the disaster—brake beams, wheels, trinkets, etc. An old engineer on the only Lake Shore engine at the harbor told me that he'd been up with his locomotive all night at the Ashtabula wreck and could never forget the terrible sight."

This comes from F. W. Aiken, 570 Church St., Toledo: "At the time of the Ashtabula disaster I was nine years old and lived in a town of some 500 population west of Cleveland on the old LS&MS. I remember a heavy-set Scotchman coming to our town, just after the wreck, renting a house and sealing himself up like a clam. He seemed to be an agreeable person but it was plain that he forced himself to refrain from making friends in our community. We wondered where he'd come from and how he'd got all the money he circulated. Nobody could get a word out of him about his personal affairs. None of us saw him do any work.

"Eventually we learned that he was an expert on the erection of stone viaducts and culverts and was on the LS&MS payroll. Meanwhile, a spinster telegraph operator had been teaching me telegraphy, and I got a job on the railroad as night op. The Scotchman's son was hired as night watchman at the same station, with the result that he and I were thrown together daily from 7 p.m. to 7 a.m. and became good friends. From him I learned that before the wreck his father had condemned the Ashtabula bridge. Immediately after the disaster, the LS&MS had arranged for the father to remain away from the scene in some remote place until the legal proceedings connected with it were closed."

Further details on the Ashtabula crash may be found in Alvin F. Harlow's book, *The Road of the Century*. Another book, *Pennsylvania Songs and Legends*, tells us that two Pennsylvania towns on the New York Central, Amasa and Stoneboro, were named for a prominent figure in the Ashtabula wreck, Amasa Stone, LS&MS director, president of the Cleveland, Painesville & Ashtabula. A coal and ore steamboat on the Great Lakes today also bears his name.

* * *

SCOOP. Twin Diesel-powered *Shasta Daylights*, which the SP described as its new "dream trains," recently went into service on the 718-mile route between San Francisco and Portland, Ore., their 15½-hour schedule cutting three hours from the best previous time. When the southbound *Shasta Daylight* reached Klamath Falls, Ore., on its first trip, a special edition of the local *Herald and News*, carrying a headline, "Streamliner Reaches Klamath on Fast Run," was handed to all passengers. A 5-column picture of the train at the station was captioned, "Here's the Shasta Daylight as it looks right now." A news story reported the new train "pulled into Klamath Falls five minutes ago on its first official run." Passengers prize the paper as a souvenir.

WANTED by Richard W. Russow, Hines Veterans Hospital, Ward C-3, Hines, Ill., a list of all engines ordered by Northern Pacific and its predecessor lines prior to the year 1910, with original numbers, builders' names, dates built, and renumberings, for use in his NP photo collection.

* * *

KATE SHELLEY'S heroism on the flood-ridden night of July 6, 1881, is recalled by A. J. Olmsted, 1021 S. Oakcrest Rd., Arlington, Va., who writes: "I was eight when Honey Creek bridge went out within sight of Kate's home near Boone, Iowa. The fireman on helper Engine No. 11 that sank into the swollen creek was my father, Amos P. Olmsted (*not* George Olmstead, as some accounts stated). I remember how my mother cried at the news of his death. His body was never recovered, although a long search was made. It may have been buried by the flood somewhere in Honey Creek valley or carried down the Des Moines River underneath the bridge Kate Shelley crossed with her broken lantern.

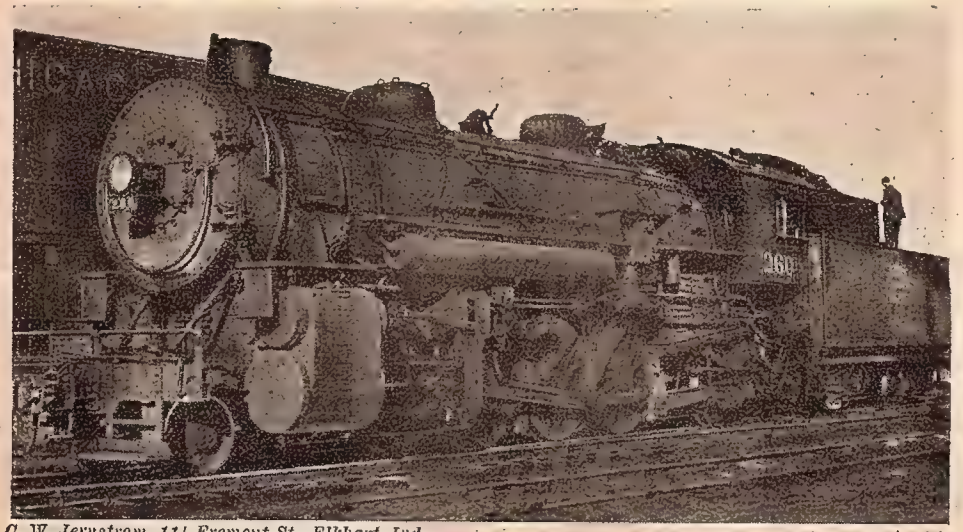
"The body of Section Foreman Pat Donohue was being attacked by buzzards when it was found. These facts will be verified by my sister, Mrs. Harry H. Weaver, 301 Tama St., Boone, Iowa. My father had been firing for years on No. 11, that pushed Chicago & North Western trains up the hill toward Boone and Ogden and out of the Des Moines River valley. His crew was on track and bridge inspection the night of the flood."

* * *

DIESELIZATION of the Indiana Harbor Belt Railroad, a New York Central affiliate, will be completed with the delivery of 27 more Diesel-electric switching engines now on order, at which time the IHB will have 118 Diesels in service as compared with 39 at present. The IHB connects directly with every trunk line entering Chicago, besides serving more than 500 industrial plants located on its own lines.

* * *

MEXICO in the old days was no trainman's paradise, according to Harry Leigh, Box 11, Hinkley, Calif., who began running trains on the Mexican Central's Tampico branch between Cardenas and Tampico in 1892. Leigh recalls that native thieves made the railroader's life miserable. Detachable air-hose had to be



C. W. Jernstrom, 114 Fremont St., Elkhart, Ind.

Wanna buy a locomotive? Indiana Harbor Belt Railroad is getting rid of these as it changes over to Diesel power

stored in the caboose to keep the light-fingered gentry from stealing and cutting them up to make sandals. Brake-rods were pilfered from cars set out on sidings, while coupling-pins netted easy cash, for in those days iron was scarce and costly.

"When we got an order to pick up 20 cars from a sidetrack," he continues, "we would find them minus links and pins, perhaps even brake-rods. The engine loaded the needed equipment and distributed it along the string of cars, while the unhappy conductor inspected the brake rigging to see if it was intact. If we had no extra hose to hook on, a long freight train might be left half non-air. All the while we had to keep watching lest someone sneak out of the brush and make off with the iron or a hose. Sometimes a freight starting to leave town would be parted because the coupling-pins had been lifted.

"All the cars had wooden underframes, so we often had to chain up after yanking out car tongues. Most of the cars were equipped with air, but some were not, and strong-arm control was necessary on steep grades. The Bojen locomotives had water brakes. These were attached to the boilerhead, a steam line running to each cylinder to prevent the cutting of cylinder packing. By opening a valve and keeping the engine in reverse, engineers managed to ease their trains down steep grades."

On Leigh's first trip his two brakemen were natives. The flagman wore shoes, indicating he was an old head. The head shack, fresh from a goat ranch, was sandal-footed. The hogger was an oldtimer, an outlaw from the Central Pacific. The flagman staggered onto the job that first day stewed to the gills.

"Drunk or sober, he's a good flagman," the engineer advised Leigh. "Later on we'll have plenty of brakemen and firemen, but right now it's the season for gathering wild cactus plums."

Leaving Cardenas, the train tipped down a mountain grade said to be 4 percent, with its elbow curves and guard rails a quarter-mile long. The steel was light and many ties had been rotted by frequent rains and fogs. Excessive speed would have meant rolling down a steep canyon.

"My flagman had hidden a bottle of tequila and was now drunker than before," Leigh goes on, "but I unloaded him, and brake club in hand strong-armed the cars, perspiring in the tropic heat. At Tampico, end of our run, sizzling temperatures and mosquitoes added to the torment. I was too worn out with work and worry to eat. The next morning, for the return trip I was given two so-called brakemen who could not speak English, German sailors who had just deserted their ship. I protested to the yardmaster.

"'Can't help it,' said he. 'There are no experienced brakemen to be had. They're all gone plum-picking.'

"I put the matter up to the dispatcher and received 'Tuna time,' *tuna* being the cactus plum. Then I told the engineer. He grinned and said, *'I've* taken on a green fireman whose experience is limited to cooking tortillas. Don't worry!' And he whistled off.

"My smiling brakemen did not even understand my gestures. I couldn't trust them with switch keys, but gave each a red flag. They must have thought these were decorations, for they tucked the corners of the flags into their buttonholes. I forcibly led the head brakeman outside the caboose and pointed to the engine. Both brakemen went forward, sat atop a boxcar, and enjoyed the scenery as the train rolled along.

"Strange as it may seem, I owned ten of the freight cars myself. I switched and braked personally. The shacks stood by idly watching me work. We climbed the grade around the elbows, through high canyon walls. Sometimes I could see only five cars, the middle of the train being concealed in a bend behind a rocky wall. The engine exhaust echoed and re-echoed.

"It was a dangerous ride. All hands should have been alert but my gestures made no impression on the German shacks, who danced on the car tops like acrobats. I gesticulated and shouted. The sailors evidently took this for applause, and put on a good show. Meanwhile, in

the engine cab, the green fireman could not keep up steam.

"I heard a train following us up the hill. Hurrying back to the rear, I flagged the hogger, another outlaw from north of the border, and explained the situation. He suggested coupling into my caboose to save flagging.

" 'It's risky if there should be a break-in-two ahead,' he said, 'but what else can we do? We can't stand here all day.'

"My drunken flagman had returned to the caboose. If the engine should crash through the frail crummy he'd be killed. I managed to get him into an empty gondola, where he remained, bewildered. Then I went up to our engine, explained the layout to the engineer, and fired the locomotive myself. I had to work like a Trojan to make steam.

"To cap the climax, my German sailors found a fellow countryman who came up to the engine cab with them and acted as interpreter. They said, 'We thank the skipper for a pleasant passage.' "

Wide World

Above is surprised F. F. McCluney who dressed up expecting Diesel on MoPac's *Sunflower* instead of coal burner

TEXAS & PACIFIC still has many a unit to go before it reaches the Dieselization point of roads like the Santa Fe and GM&O. However, since 1946 the T&P has converted from steam to Diesel 70 per cent of its switching power and more than 60 percent of its passenger-train miles.

* * *

NEWFOUNDLAND, by recently becoming Canada's tenth province, added the approximately 700 miles of track of its Newfoundland Railways to the Canadian National Railways' total of more than 23,400 miles," writes D. M. Campbell, 89 Normandy Ave., Truro, Nova Scotia. His letter continues: "The Newfoundland Railway main line extends from Port-aux-Basque to St. John's, 547 miles. This is a narrow gauge line, using 70 lb. steel. Motive power consists of steam locomotives and a small number of Diesels. Passenger equipment consists of first and second-class cars, sleeping, dining and observation cars. Sleepers contain open sections and drawingrooms. Recently the Newfoundland Railway received delivery of some new type locomotives and new steel passenger cars (See Oct. Railroad, page 55). These were transported on flatcars to Halifax, N. S. and then moved by boat to Newfoundland. The full name of the railway is The Newfoundland Railway and Steamship Service, and the steamship service is maintained by nineteen ships, used between coastal points of Newfoundland, and also between Port-aux-Basque, railhead on Newfoundland, and North Sydney, N.S., a distance of 98 miles. Connection is made at North Sydney for trains to Truro, N. S. from which point through trains and Pullmans operate to Montreal and Boston."

* * *

JOE EASLEY'S *Along the Iron Pike* (Sept. '49) pictured a ticket office offering a travel bargain, Los Angeles-Chicago round trip for one dollar. "According to our local histories," comments

Charles Puck, 4840 Rosewood Ave., Los Angeles, Calif., "the price-cutting was started by Southern Pacific early in March, 1887. The Santa Fe followed, and each morning thereafter for the next few days a lower rate was advertised. The price of rail fares fell rapidly. On the morning of March 6 the round trip was down to $12. That day at noon the SP announced the $1 fare, and the Santa Fe met the new cut.

"The war was on! It lasted from March 6 to 10 inclusive. Then the fare jumped to $10 from L.A. to Chicago, and $23 more to go on to New York. After that came a steady climb back to normal. This happened before my time, but my father was then in L.A., having come by rail in 1885 by paying $100 fare from St. Louis. After the rate war ended, he helped the SP to build its big depot at Truckee, Calif., which is still there."

Keystone Pictures

At English seaside resort is trailer introduced in drive for railway excursion passengers. Unit carries tickets, timetables, travel literature. Crew can cook, sleep in section behind counter

Apropos of rate wars, consider this telegram that Amasa Stone, then president of the Cleveland, Columbus & Cincinnati, sent to another rail official in June, 1859: The steamers *City of Buffalo* and *Western Metropolis* are carrying passengers between Cleveland and Buffalo at two dollars. We have made rail fare four dollars. The Pittsburgh Line (PRR) reduced fare to New York to twelve. We followed them."

* * *

PHOTO of Burlington Train No. 1 pulled by Engine 1592, in our Aug. '49 issue, page 60, thrilled Charles L. Hughes, R. 4, Perryville, Md., he writes, "because I had one of the original pictures hanging in my bedroom when I was a boy and regarded it as a valuable possession. The lad shown waving to the engineer—I wonder who he was and if he is still living? That was the train which 'took its own picture' by means of an electric device attached to the rail and the camera shutter . . . Years later I fired P2 compounds on the Burlington."

* * *

BIGGEST British Railways development since nationalization is now under way—the construction of a mammoth new passenger terminal at Ocean Dock, Southampton, at a cost of more than $3 million. It will be capable of handling the largest passenger liners in the world, and for the rapid dispersal of passengers will have trackage on which two full-length boat trains can be operated at the same time.

A free pamphlet describing *The Capitals Limited* and 10 other of Great Britain's famous name trains will be sent on request by Associated British and Irish Railways, Inc., 9 Rockefeller Plaza, New York 20, N. Y.

* * *

PULLMAN car *Olivette* (pictured on page 56, Aug. '49 Railroad with New Jersey, Indiana & Illinois Engine No. 3) was described in our caption as a "sleeper" but at the time the photo was taken it was really a private Pullman used by

the road's president, Clayton Mayo, now deceased. This correction comes from old reader, new subscriber T. A. Hynes, NJI&I Vice President, Lafayette Bldg., South Bend 12, Ind., who adds:

"We did inaugurate in 1921 a regular passenger-car service between South Bend and Detroit in connection with the Wabash RR. The private automobile and the airplane obliged us to remove this sleeper from service about ten years later. Alco built the 3-spot for us in 1914; cost $13,500. We sold her in '31 to Binkley Coal Co."

* * *

WHERE'S That Car of Freight?, a new Santa Fe pamphlet, explains the workings of the road's redball information service. This service enables shippers to know exactly where their car is at regular and frequent intervals as long as it is on Santa Fe lines. Free copies of the illustrated booklet are available by writing to F. H. Rockwell, General Freight Traffic Mgr., Santa Fe Railway. Chicago 4, Illinois.

* * *

CANADIAN PACIFIC movie rates little more than zero for actual construction scenes, laments Victor A. Salsberg, gandy dancer, 703 8th Ave., Seattle, Wash., who adds: "Perhaps some day a *real* railway construction film will be made by using gandy dancers, hard-rock tunnel men, a good foreman and a superintendent. I hope so."

* * *

PEN PAL. This comes from Edwin Munch, 3119 W. 62nd St., Chicago 29, engineer on the Chicago Jct. Ry., a New York Central affiliate: "About 10 years ago *On the Spot* ran a letter from a railroader living in England who sought data on the line serving Chicago Union Stockyards. As I have long been employed by that road, I answered him. We have been corresponding ever since. I really enjoy his letters. Every month I send him my copy of *Railroad Magazine* as soon as I finish with it and occasionally send other rail publications. He tells me about operating conditions in his country."

* * *

TAKE a Message. Recently an oldtime ham telegrapher was sitting in a RR-WU joint telegraph office where an ancient sounder and the Morse code were still doing their stuff. He heard a message come in over the wire, and was amazed by the signature at the end:

. . . .
. . . .

"This signature (Cy Crozier) struck me as unique," he writes, "because (1) it contains not a single dash, (2) it uses all the spaced dot letters in the Morse code, (3) only two spaced dot letters, C and R, are used twice, (4) only two spaced dot letters, E and J, are used. The nearest I can come to it is the name and address by which I prefer to subscribe myself:

. . . .
. . . .
. . . .
. .

." For the benefit of non-telegraphers and ex-telegraphers who have forgotten their stuff, this translates: Zero, Erie Ice Co., Echo, R. I.

* * *

MODEL railroaders are keeping their eyes on the Lackawanna's Hoboken, N. J., terminal, where the New York Society of Model Engineers is building a ¼-inch scale layout which, when completed, will be the largest of its kind in the world, with over 7000 ft. of track.

* * *

THE LAST time I ever wore a cap was in March, 1893, when I was 19 years old and had begun working for the Baltimore & Ohio in Washington, D. C.," writes Harry C. Triplett, 10167 Indianapolis Ave., Chicago 17, Ill., who is now 76. "That night we worked outdoors in a bitterly cold snowstorm. I had a big Scotch cap pulled down over my ears and did not hear my partner ask me to have

a drink. When I heard about his offer later, I decided never again to wear a cap, and I never did.

"I started reading your magazine in 1906, when it first came out and was called *The Railroad Man's Magazine*. In 1941 I retired. One day when I was working for the B&O in Chicago, a young man walked down the track and asked our foreman for a job. The foreman told him:

Roundhouse in wintry valley is at town aptly-named Timber, division point west of Portland on small Southern Pacific branch line which is the only railroad serving coast center of Tillamook, 62 miles farther west

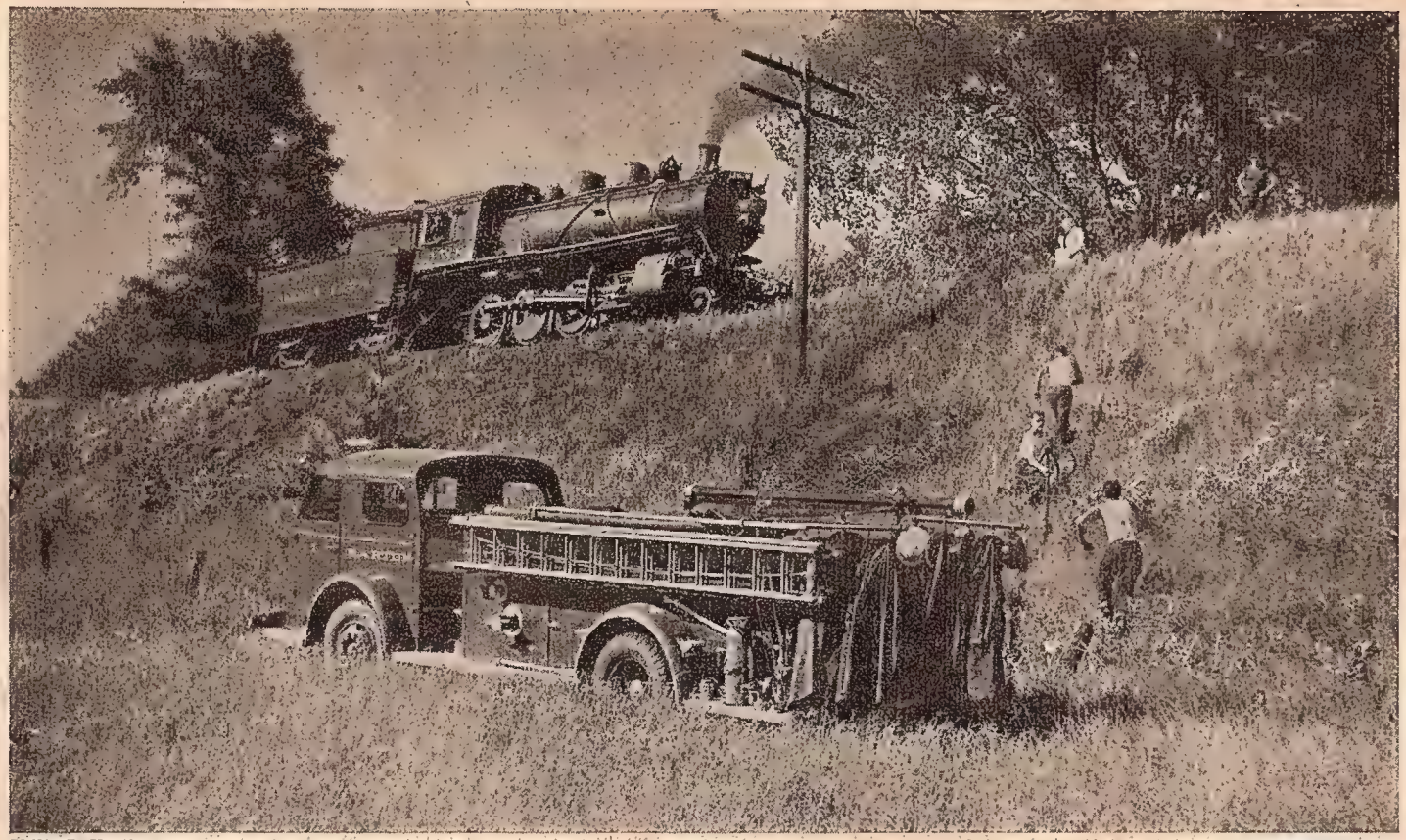
'Okay, come to work in the morning.' But the young man said: 'No telling where I'll be tomorrow. I'm hungry and want work now.' So the foreman gave him a quarter to buy himself a meal. (You could get all you could eat for 25 cents in those days.) Half an hour later he came back.

"The foreman handed him a large, long-spouted oil can, saying, 'Take this and oil all the switches you find.' The fellow started down the track, oiling every switch he came to. But the next morning he did not come to work, or the next. Then, on the third morning the foreman got a wire from the young man saying he had reached Detroit and was all out of oil.

Triplett sent us a copy of a letter written by Miss L. M. Conrad, Monroe, Wis., regarding that legendary boxcar artist J. B. King, which states:

"My father related an experience he had 25 or 30 years ago when he encountered King in a saloon at Shullsburg, a Wisconsin mining town. During his work my father came in contact with many boxcars and coal cars and had often noted the beautifully crayoned (or chalked) signature of 'J. B. King' on their sides. A stranger stepped up to the bar and said, 'The next treat is on me.' Asked who he was, he wrote the name J. B. King on the bar in the familiar style Dad had often admired, which convinced my father that he was the original J. B. King."

We have come across many different "originals" of J. B. King, but from evidence published in this magazine a few years ago we are fairly certain that the legend started in a penmanship copy book,



Philip R. Hastings *Rail Photo Service*

This happened during the dry season of 1949. Engine 3518 had helped a heavy freight over a steep grade; on return trip crew found a grass fire raging on fill. Keeping the fire under control with cab wetdown hose they stayed at the scene till the arrival of the Barton, Vt. fire dept.

from which the famous specimen signature was copied and recopied on boxcars.

* * *

THOUSANDS of New York Central employes are studying the company's new 10-unit correspondence course entitled *Be a Better Boss!* This is described as "a practical course in how to succeed as a supervisor by learning how to work with people and problems." The lessons are written in chatty, easy-to-read style, embellished with true-to-life stories of actual business problems.

* * *

A NEW type of semi-automatic telegraph key has been designed by a former Canadian Pacific man, Paul Dow, 578 Goulding St., Winnipeg, Canada, according to a Winnipeg *Manitoba Tribune* clipping sent us by Richard Chaman, 26 Peterboro St., Detroit, Mich. This device has just been patented at Washington, D. C., as well as in Canada.

"The patent," says the newspaper, "will result in a new industry in Winnipeg and will literally make its way heard around the world. It is a modification of the semi-automatic telegraph key, reputed to be the first practical improvement of the 'bug' in 43 years. The improvement is a simple adjustment of the thumb piece or 'dot paddle' of the telegraph key, allowing it to be rotated to any position desired by the operator.

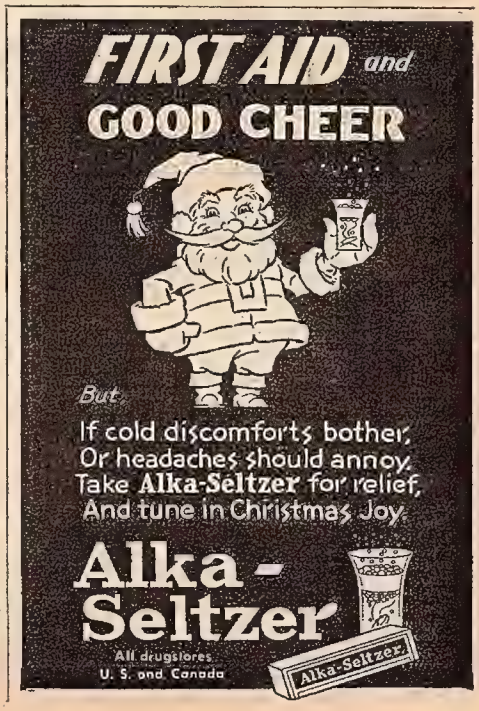
"When you consider that every telegraph operator owns his key and adjusts it to his touch, the importance of Mr. Dow's invention to the brass pounder is comparable to the discovery of the washing machine for the housewife. Until now the thumb piece, a flat round object, was fixed in a vertical position. Now the piece can be rotated to any angle, allowing the operator free movement when tapping with his thumb."

Mr. Dow, aged 60, has been engaged in wireless work since he was 15. He plans to begin soon to manufacture the set in Winnipeg and to open an assembly plant at Warren, Minn., for the U.S. trade.

WESTERN PACIFIC'S *California Zephyr*, the only transcontinental train with glass-topped Vista Dome cars, has carried more than 82,000 passengers in its first six months of operation between the West Coast and Chicago. Much of the train's popularity is attributed to the Vista Dome, in which passengers riding above the car roofs have an unobstructed view while traveling through scenic Feather River Canyon in California and the Colorado Rockies by daylight.

* * *

BELTON, MONT., on the Great Northern main line, was renamed West Glacier last October first on account of its being the west entrance to Glacier National Park, reports Walt Thayer, Box 1588, Chelan, Wash. The change will also prevent the shipment of the citizen's mail to other Montana towns with names similar to that of Belton.



COMMUTER in a big way is A. A. Tilden, who recently made his 388th trip between Boston and St. Louis on the New York Central. He's an official of the G. E. Belcher Last Co., Stoughton, Mass.

Keystone Pictures

Prince Axel of Denmark named new British passenger locomotive *East Asiatic Co.* in honor of Danish motorship line

AN OVERSEAS subscriber of *Railroad Magazine,* Kenneth Bailey, 15 Ryelands St., Hereford, England, writes: "Each issue comes through on time. My eyes gleam when I hear a thud on the hall floor denoting that once more *Railroad* has reached its destination via the front door letter box. Who will send me *Railroad Magazine* for the first 4 months of 1946 and any recent issue of *Railway Age,* in exchange for 12 British *Railway Magazines?*"

WHY does the Union Pacific have so many steam locomotives boarded up at Pocatello, Idaho?" asks Pete Martinez, 1303 S. Kennedy Ave., Tyler, Texas. "I saw them on my recent vacation but didn't have time to stop."

* * *

CASSVILLE & EXETER, which suspended operation almost a year ago because the roadbed and tracks had deteriorated to a dangerous extent, will soon be running again, according to Dr. Arthur P. Wheelock, an optometrist of Des Moines, Iowa, who has just bought the 4.8-mile line in the Ozark Hills of southern Missouri. Dr. Wheelock is a member of the Des Moines Railfans Club. He plans eventually to retire as an optometrist, move to Cassville, Mo., about seven miles from Roaring River State Park, and give his full time to running the C&E.

He and his partners in the venture acquired the "wooden-axle pike" from Ray Dingler, Navy veteran of World War II, who had inherited it from his father, Dave Dingler, founder, president and locomotive engineer. The reported purchase price, $18,000, included the tracks, the right-of-way, the small wooden depot at Cassville, and one steam locomotive, a fairly recent acquisition from the Frisco Lines. The C&E connects with the Frisco at Exeter after an uphill climb from Cassville. The new owner hopefully estimates that C&E freight will run between 800 and 1000 carloads a year. There is no passenger business.

The road was started around the turn of the century, its main customers being lumber concerns, coal yards, merchants, and livestock shippers. No other railroad serves Cassville. While the C&E was suspended, trucks hauled the freight—but not satisfactorily, the shippers say. Much money will have to be spent on new ties and ballast before operation can be resumed.

Associated with Dr. Wheelock in the C&E are P. P. Sizer, vice president; Norman LeCompte, secretary; J. A. Black-

lack, treasurer, and Elry Aaron, auditor, all of Cassville. About a mile from Exeter a farmer has strung barbed wire between cattle guards along the track. If they get her running again," he promises, "I'll take the wire down."

Dr. Wheelock bought the short line to fulfill a boyhood dream. Now 55, he says he's "always been a bit railroad-crazy," ever since he lived with his folks near the Rock Island main stem at Moline, Illinois.

* * *

FURTHER light on the early use of engine bells is shed by Norman J. Perrin, 4523 Arabia Ave., Baltimore 14, Md., after reading Freeman H. Hubbard's article, "Romance of Locomotive Bells" (Sept. '49). Perrin found in the Oct. 1841 *American Engineer* 13 rules governing operation on the Baltimore & Susquehanna (Now PRR) and these words, "We might suggest that the rule of sounding the bell or whistle in all doubtful cases should be introduced," clearly proving that the locomotive bell had been introduced before that date.

Perrin continues: "When the B&S' Calvert station in Baltimore was first used, it was necessary to reroute passenger trains that had previously used the older Belvidere station. An ordinance covering this change, passed April 6, 1849, authorized the use of locomotives on North Street (now Guilford Avenue). It stated: 'A man shall be required to walk 30 feet in advance of such locomotive with lighted lantern at night, and those in charge of locomotive when approaching street crossing ring the locomotive bell. Failure to do so shall result in a fine of $20.' That was the first ordinance I have located relative to the B&S that mentions a locomotive bell.

"Not until 1852 did the State of Maryland pass a law requiring each locomotive to be provided with a bell or steam whistle which should be sounded 100 yards before, and 100 feet beyond, any travelled public street or road. The penalty, $30, was divided between state and informer.

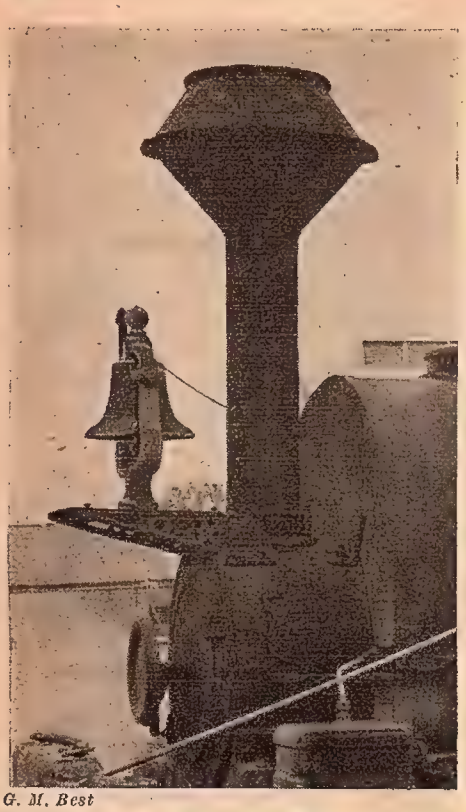
"The Philadelphia, Wilmington & Baltimore (PRR) offered an interesting variation of the man walking with lighted lantern at night and riding a horse and blowing a horn in daytime. It employed for

Railroad Photo Service

Wearer of jacket covered with railroad monograms is Bobby Heuremann, Asst. Director of Railroad Photographic Club, California Division

the same purpose a small handcar in front of all trains entering or leaving Baltimore. This was worked by two men and carried two large signs, one on either side, labeled 'Look Out for the Locomotive!' At night the handcar was lit by a red lantern. Being but 18 inches from the ground and having two men aboard, this arrangement was considered better than a man on horseback. In case of a child playing on the track, one of the two men would leap off in time to effect a rescue."

Photo of Great Western of Canada engine on page 22 of our September issue showed a bell placed on the pilot beam, with the explanation, "GWC believed forward position amplified the warning



G. M. Best

Fan-owner of this Porter-built antique found it had rare wrought steel bell. (See Dec. *Spot*, page 124)

din." T. H. Zealand, Colonial Hotel, Chicago 37, Ill., writes:

"This is not quite correct. The bell was placed on the pilot beam to fit into the scheme of automatic ringing of the bell. The bell did not swing and had no tongue. A clapper fastened to the end of a flat steel spring which engaged with a ratchet hook on the forward end of a ¾- or ⅞-inch round rod was pulled back and released, making it strike the bell inside.

"On the rear end of the rod, which passed through the cylinder saddle, was an eye that fitted over a stud screwed into the side of one of the eccentric yokes. There was one tap of the bell for every turn of the drivers. At high speed the hook and clapper did not always engage properly, which caused the bell to miss sometimes. In winter when the bell became filled with snow it didn't ring at all."

Getting back to "Romance of Locomotive Bells," we hear from Samuel F. Babbitt, 130 Shaw Ave., Edgewood 5, R. I.: "Chicago & Grand Trunk Engine No. 57 (pictured on page 22) was built by Rhode Island Locomotive Works in September, 1882. Ten of these were built, with shop numbers 1209-1218, cylinders 18 by 24 inches, and 72-inch drivers. It was about that time that the Rhode Island Works was building fast passenger power for several New England roads.

"I went to work in the Rhode Island's drafting room in 1889, stayed there till the panic of '93, and then worked as salesman for an oil company for 35 years, during which time I never lost my interest in railroads."

* * *

RAILROAD US Mail Messengers. "By hiring out their employes to the Postal department on a minute basis the American railroads are only courting disaster," writes Louis Poliniak, Reading Co. agent at Locust Gap, Pa., who doesn't like the way Uncle Sam is shoving the railroads around. His letter goes on: "Necessary railroad work is neglected by small town agents and clerks whose duties require them to handle US mail. Passengers are turned away from the ticket window, baggage is not checked and last minute Western Union's are refused, all because a competitor has priority—the mail, mostly parcel post, must go through.

"Parcel post, today, is nothing but freight traffic unfairly taken away from the railroads and express companies. The Postal department is going into the freight business in a big way. I have seen whole factory outputs go out via parcel post. It is much cheaper for the Postal department to keep parcel post on the rails instead of the highway, as highway trucking concerns are more difficult to handle; it is much easier to pin a railroad down to a contract than an individual trucker.

"Not content with underselling transportation, refusing to meet the carriers current increases in operating costs, and last but not least, compelling the railroads

under penalty of fine to collect the transportation tax through their express, baggage, freight and passenger departments, the Government also sends millions of tons of parcel post freight over the rails tax-free.

"Suitcases, valises, foot lockers and small trunks, all locked and sealed, are being accepted by the Postal department and sent out over the railroads at parcel post rates. And this in spite of strict postal regulations which plainly state that anything that is locked and sealed and cannot be opened for postal inspection must travel at first class rates, or about three cents per ounce.

"I have handled quite a few of them. Out of curiosity I weighed a suitcase on the freighthouse scale which tipped the beam at forty pounds, but had only 63 cents worth of postage applied. At first class rates (it was locked and sealed against inspection) I figured that roughly the postal authorities should have charged $19.20 for the 100-mile haul. In this case a railroad messenger hauled the suitcase from post office to station, put it on the train, and then another railroad US mail messenger had to take it to the Post Office at destination. Can the railroads continue to perform this service for the Postal department without going into bankruptcy? I know of an instance where a passenger had 150 pounds of baggage checked free on his ticket, then took a 50-pound valise to the Post Office to be sent out parcel post, instead of letting the railroad ticket agent collect a few cents on it as excess baggage. The person who sold the ticket had to handle the railroad baggage and also the parcel post baggage, because he was the railroad US mail messenger.

"There was a time when parcel post traffic consisted of small packages which were confined to the parcel post pouches; but here is parcel post in 1949: trunks, suitcases, bicycles, lawn mowers, hog fenc-

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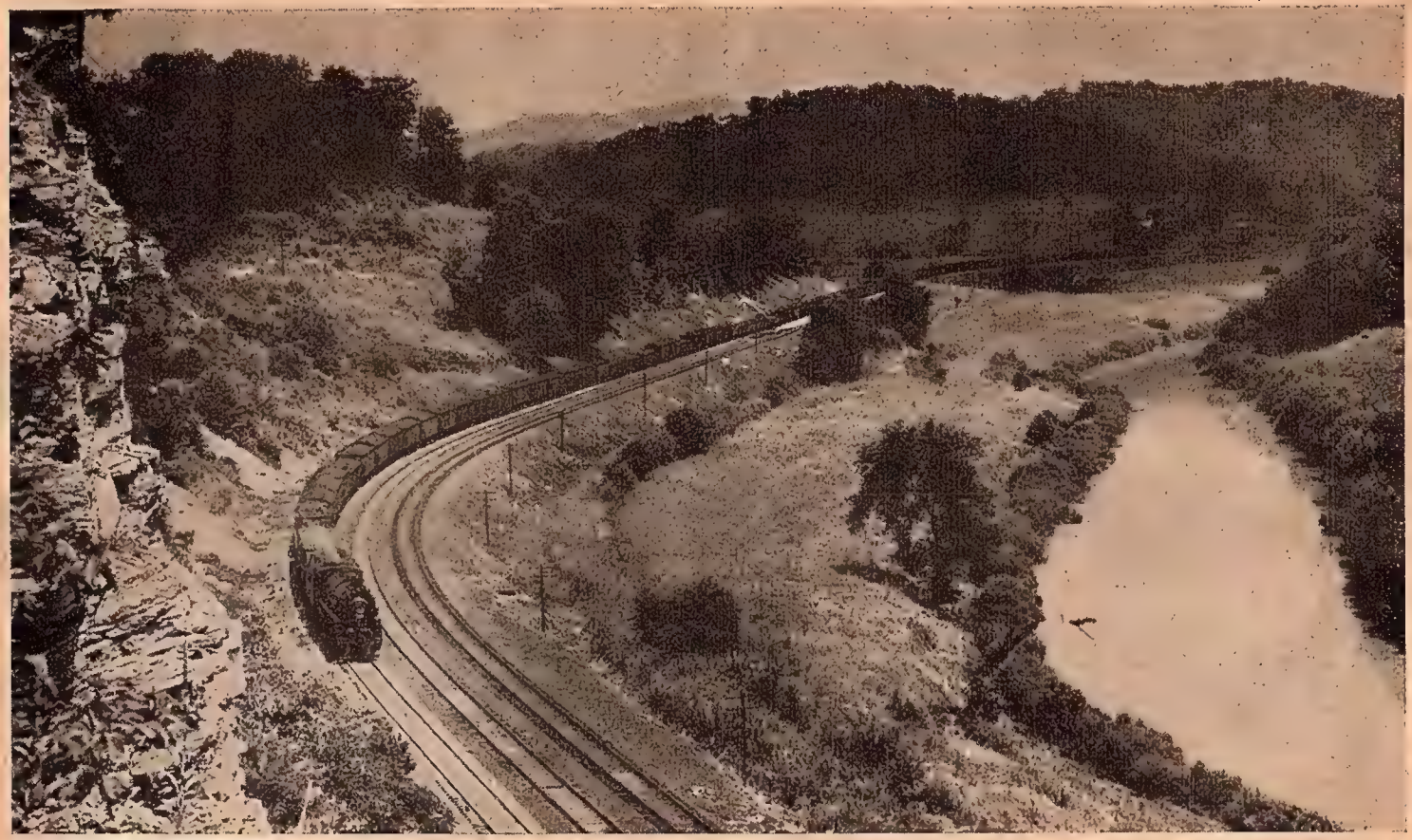

Louisville & Nashville Railroad

A lone locomotive of the Louisville & Nashville tugs at a 100-car train of coal-laden hoppers. The black diamonds are from the mountains of eastern Kentucky. Picture was taken near Artemus, Ky. on L&N's Cumberland Valley Division where track parallels the Cumberland River. L&N is one of nation's big carriers of bituminous, hauling millions of tons annually

ing, poultry wire, tar paper; trees up to nine feet long; heavy mining, industrial and agricultural supplies; live chicks, frogs, bees; red, yellow and green label liquid; solid commodities; and quoting the deceased Ripley, believe it or not in the state of Utah a state bank was built of building bricks which were all brought in via parcel post. Yet the railroads maintained subsidiary trucking transportation from railroad freighthouse to that point.

"All of the above mentioned articles are transported federal tax free when moved via parcel post, but when the railroads or the express departments move such commodities the federal government's hand is outstretched for the tax.

"The profit or loss of a passenger train depends solely upon the amount of passenger revenue obtained therefrom, and not from the handling of the mails. Prospective passengers refuse to patronize trains that are constantly delayed by loading or unloading of postal department freight. For instance, a passenger buys a first- or second-class ticket, and pays a 15 percent federal transportation tax, while in the third car ahead of him parcel post freight, tax-free, moves with the same speed he does. Within a 60-mile run the train is from 30 to 45 minutes late because of time lost loading and unloading mail. People just refuse to ride such trains and take to buses, where only passengers are handled.

"The railroads operate as a private business and the postal department should not take advantage of the railroads to the extent that it has. The only remedy for the railroads is to discontinue the practice of having railroad employes handle US mail. This they can do by not renewing contracts when they run out or expire. The sooner the railroads disassociate themselves from a competitor who is slowly driving them toward the brink of bankruptcy, the better it will be for the carriers.

"In some instances a Western Union messenger receives more for his messenger services than a railroad US mail messenger who must transport from depot to

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Post Office from 500 to 2500 pounds of mail for a few cents. The Postal department should furnish their own RPO cars, the same as oil companies furnish their own tanks, packing houses their refrigerator cars, etc, According to the latest A. A. R. report an RPO car costs more than $40,000.00, which must be borne by the railroads. Can the railroads afford to spend such amounts on cars for the sole benefit of an underselling competitor?

"The best passenger trains in the United States do not haul any US mail, and it is about time the railroads began accomodating the passengers on their trains instead of the government's parcel post business."

* * *

ARTICLE on the Washington & Old Dominion in October Railroad prompted a gleeful correction from G. W. Edgerly, Maj., U. S. A., ret., of 3908 McKinley St, N. W., Washington, D. C. "In the second sentence of the very first paragraph there is a MISSTATEMENT," he writes, "which inspires me with a keen desire to throw the hooks into both the editor and the author. The old Aqueduct Bridge is *not* a structure and never was a structure which brought part of Washington's water supply from Virginia. It was built a hundred years ago or more to bring a branch canal from the C&O canal across the Potomac. But experience showed that it was not practical and after a time it was floored over for vehicular traffic. When the Key Bridge (named for Francis Scott Key) was built the piers of the old Aqueduct Bridge remained, but these were removed by FERA labor during the depression, down to the water level, where the stumps and foundations still remain."

* * *

QUICK THINKING is a common trait of railmen. For example: Charles McDonald, a Boston & Maine switch tender at Bangor, Me., had just pulled his switch for the yard goat to enter a siding when he saw a man fall into the Kenduskeag

stream. This posed a problem. A southbound Bangor & Aroostook train was due in 5 minutes, while a B&M southbound job, due 10 minutes later, would have to be switched onto another track. In 15 exciting minutes Charley managed to get the man out of the water and both trains in the clear. Good work, Charley!

* * *

AUSTRALIA as yet has no Diesel locomotives," writes Lindsay Henry, Mountain View, Via Peewong, Australia, "but I'd like to see some here, as our Victorian Railways since 1943 have never had enough coal. We import British coal to supplement our local production. I have been reading *Railroad Magazine* since April '47. Tell Steve Maguire the Victorian Government is replacing with trams (streetcars) its buses on Melbourne's Bourke Street, in contrast to the abandonment of such service elsewhere."

* * *

DIESELS of the type shown in May '49 *Locomotive of the Month* are used also in Jersey Central commuter service reports George Hathaway, 143 Oakwood Ave., Long Branch, N. J. He adds: "Such power would appear to be very vulnerable to grade-crossing accidents, as front-end protection against track obstacles seem sadly lacking. A better-designed pilot should not make an expensive improvement. Its cost would be offset by the savings in just one crash."

* * *

ANSWER to Peter Josserand's train problem, *Right by Direction,* on pages 6 and 8 is as follows:

The super's decision was that Hogger Hanford's orders entitled him to proceed to A irrespective of Extra 2150 East. Since that train held an order to run extra A to H and no provision was made for the opposing trains to meet, a lap of authority existed.

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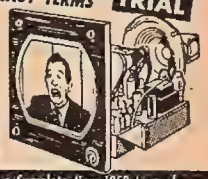

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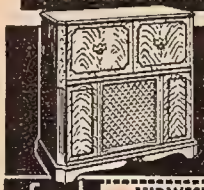

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regular trains, authorized by timetable schedule, can be superior by either class or direction; and superiority by direction can exist only between opposing trains of the same class.

The second paragraph of Rule S-87 reads:

> Extra trains must clear the time of opposing regular trains not less than five minutes unless otherwise provided, and *will be governed by train orders with respect to opposing extra trains.*

There was nothing in Order Number 136 which conferred right on Extra 2150 East over Extra 3142 West.

However, Hogger "Hungry" Hanford was severely criticized by the super for his attitude, for the General Notice begins with the admonition: "Safety is of the first importance in the discharge of duty."

* * *

LAST STOP is the Reader's Choice Coupon (page 145) which guides your editorial crew in selecting material for future issue of *Railroad Magazine.* Some readers use the coupon. Others prefer not to clip the magazine; they send home-made coupons, postcards or letters. Regardless of how votes are given, all count the same. Results of balloting on the November issue show as follows:

1. The California Zephyr, Lathrop
2. On The Spot
3. Lost Locomotive, Somerville
4. Light of the Lantern
5. Rethreading Cascade Tunnel
6. Our Navy On Wheels, Harlow
7. Bucking the Rebel Blockade, Small
8. Promoting The Orient, Draper
9. Railroad Street, McGuire
10. Model Railroading.

Most Popular photos: pages 68, 16

Railroad Camera Club

ITEMS sent to the *Switch List* and *Model Trading Post* are published free, in good faith, but without guarantee. Write plainly and keep 'em short. Print name and complete address.

Because of time needed to edit, print and distribute this magazine, all material should reach the Editor eight weeks before publication date. Redball handling is given to items we get the first week of each month; if accompanied by latest Reader's Choice Coupon (clipped from page 145 or home-made).

Rail Photo Service

Heading CNR noon *Detroiter* from Sunnyside, Ont. is trim late series 4-8-2

Due to scarcity of space, we prefer that no reader be listed here oftener than once in three months.

Use these abbreviations: *pix*, photos; *cond.*, condition; *ea.*, each; *elec.*, electric; *envl.*, envelope; *eqpmt.*, equipment; *esp.*, especially; *info.*, information; *n.g.*, narrow-gage; *negs.*, negative; *p.c.*, postcard; *pref.*, preferably; *tr.*, train.

(R) indicates desire to buy, swap or sell back issues of RAILROAD or its predecessors, *Railroad Man's or Railroad Stories. (Specify condition of each copy.)*

(*) indicates juicefan appeal.

Switch List

JIM ADY (R), 333 Ximeno Ave., Long Beach 14, Calif., will pay $2 ea. for *Railroad Magazine*, good cond., May '33, May '37, Mar. '40, Oct '42, Mar. '46; will buy or trade SP, Santa Fe, western shortline emp. tts. Will pay high price for Santa Fe, Ariz. Div. tts. prior '33.

D. L. ARMOUR, 1419 S. Ross St., Santa Ana, Calif., will sell collec. D&RG railroadiana, tts. other rds. Write for list. Wants any size n.g. pix and rosters. Write first.

(R) KENNETH BAILEY, 15 Pyelands St., Hereford, England, will trade 12 British ry. mags. for Jan.-Apr. '46

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BRADFORD COMPTON, 513 N. West St., Manassas, Va., has SOU Diesel, steam pix, p.c. size to trade or sell.

WM. CORBY, RFD 1, Box 512, Morris Plains, N. J., has pix DL&W, M&E, n.g., sand and gravel co., size 127, 620, double size, 9c ea.; also has tts., rr literature.

(*) JAMES COYNE, 949 Cumberland Ave., Syracuse 10, N. Y., wants pix, negs., interurbans, Pac. Elec., Rochester Transit, ICRR.

(*) O. R. CUMMINGS, 23 Main St., Amesbury, Mass., will send '49 list New England trolley pix for stamp; wants good pix old, new PE eqpmt., scenes.

(R) A. DAILING, 753 Fennell Ave., Hamilton, Ont., Canada, will trade or sell *Railroad Magazine*, '48, '49 compl.; *Trains* '45-'49 compl.; *Model Railroader; Model Craftsman* issues. Wants HO eqpmt.

(*) H. F. DIETRICH, Apt. 80, 70 Central Ave., New Haven 15, Conn., is selling compl. juice pix collec., mostly size 116, 20 pix, $1, guaranteed; mostly Conn. Co., PE, New England lines, no list.

(R) ROBT. B. FRICK, Box 25, Brewster, N. Y., will sell *Railroad Magazines* '36 to '45, not all issues; various *Model Craftsman, Miniature Railroading, Model Railroader, Model Builder*. Send for list.

M. P. GANEY, 2624 N. Meridian St., Indianapolis 8, Ind., will sell 4800 varieties U.S. annual passes or trade for Ind. RR annual passes, obsolete stocks, bonds, tts. annual reports prior 1900.

BOB GAZAY, 1014 B Pine St., Seattle 1, Wash., wants *Locos of Sou. Pac.* by G. M. Best; also pix old SP power 1880 to 1910; SP Western Div. emp. tts. '10 to '25.

(*) O. A. GOESSL, 5803 Fontainebleau Dr., New Orleans 15, La., has list p.c., and size 616 juice pix CNS&M, ITRR, local cos., 10c ea., 15 for $1.; has few *Desire* car negs.; will buy or trade good size 620, 616 juice negs.; other material such as tokens, rosters, etc.

T. G. GRIGGS, 26 Park Pl., Morristown, N. J. will buy pix of old B&P inside cylinder locos. built prior to 1868.

ALBERT G. HALE, 82 Roberts Rd., W. Medford, Mass., will sell or trade B&M size 616 negs. steam, Diesel power. Wants all southern rds., D&RGW, WMd.

(R) ARTHUR HAMPTON, 53 Linden Park St., Boston 20, Mass., will sell or trade new Johl's v.s. comm. stamps of 20th Century, 2 vols., $8.50 cash or equal value *Railroad Magazines*.

(R) JOHN C. HANBACH, 17 Hawthorne Ave., Buffalo 14, N. Y., will sell *Railroad Magazines* '41 to date; *Elec. Ry. Journals* '03 to '40; emp. tts., etc. List for stamped env.

(R) W. H. HARRIS, 57 W. Elm St., Stockton, Calif., will sell *Railroad Magazines* '32 to present; *Trains* '43 to present. Write for list.

J. M. HEDEGARD, 8042 S. Champlain, Chicago, Ill., wants old Colo. RR pix, info., other railroadiana.

RICHARD HERMAN, 533 Central Ave., Jersey City 7, N. J., wants to corres. with earnest rail fan, 12 to 16.

RAY F. HIGGINS, 4191½ Katahdin Ave., Millinocket, Me., will sell collec. RPO cancellations; old Bangor & Aroostook emp. tts.; colored p.c.'s rr subjects; first-day covers, U.S. stamps; BAR eng., pix.

(*) RICHARD W. HOLMES, 490 Henry Ave., San Jose, Calif., will trade excell. negs., pix most of PE's present eqpmt. incl. all detail shots, sides, ends, roofs, etc. or will buy negs. same type views CCT, C&LE,

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R. G. JENEVEIN, 566 Montclair Ave., Oakland 6, Calif., will sell '41 *Loco*, '43 *Car Builders*, '45 *Maintenance Cycl.*, excell. cond., $10 ea. COD or best cash offer.

J. E. JONES, 2104 11th St., Wyandotte, Mich., will sell to highest bidder over $15 very rare book, printed 1855, 650 pgs., 9x11, *Reports of Explorations and Surveys for a Route from the Miss. River to the Pac. Ocean.*

F. G. KARL, 319A Niagara, Sheboygan, Wis., wants size 122 negs. C&NW; will buy or has C&NW, Soo negs. to trade.

ALBERT B. LAMBORN, PO Box 271, West Chester, Pa., will sell, trade *Model Craftsman, Model Builder, HO Monthly, Model Railroader,* other misc. books, model RR kits, pts. Write for list.

(R) FRANCIS M. McNAMARA, 2 Read St., New

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Haven 11, Conn., has back issues *Railroad Magazine, Trains, Model Railroader* to exch. for U.S. Mint Commemoratives or Presidential stamps. List for stamp.

(*) JOHN A. MACLEAN, 290 Avenue Rd., Toronto 5, Ont., Canada, will sell size 116 steam, elec. pix incl. CN, CP, PGE, B&M, AT&SF, SP, etc., 10c ea.; list, sample 10c. Wants to buy or trade for high class steam, elec. negs. all lines.

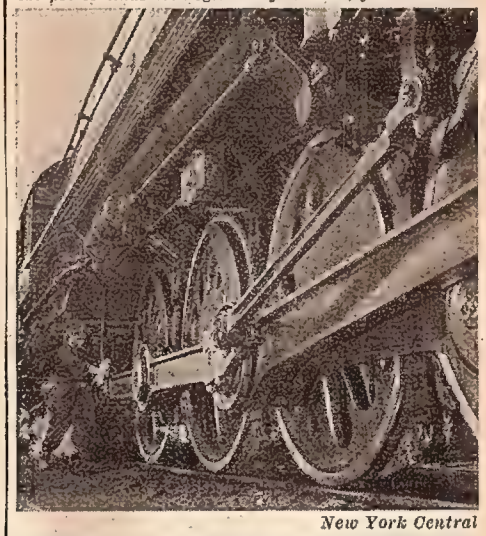
(*) FRED MATTHEWS, Jr., 652 Boulevard Way, Oakland 10, Calif., has ltd. number 35-mm. color slides West Coast juice lines to trade for same of East, Midwest.

(*) EDWARD J. MELANSON, 40 Grant Ave., Medford 55, Mass., offers 3x5½. Velox pix Super XX 620 negs. rail, trackless trolley eqpmt. Sanford, Me., Boston, Yonkers, Manhattan, many other cities, 10c ea. Also photostats (off. plans) Boston & Reading eqpmt., 50c ea.; send stamp for list, 10c for sample pix, your choice.

JOHN MITCHELL, 4297 Lakeshore Ave., Oakland 10, Calif., will sell over 500 tts.; send for list. To highest bidder *Railroading from the Head End, Ry. Engs. of the World,* good cond.; has 2 colored pictorial folios by Sou. Pac., *Scenic Calif.* and *Glamorous San Francisco.*

WALTER NELSON, 41 Maltby Pl., New Haven, Conn., will sell emp. tts. all New England rrs.; also shortline emp. tts. No list; state wants and price.

JANET PAUL, 204½ W. Salem, Indianola, Ia., has 3x5 pix to trade for negs. List your offer, your wants.



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(*) HENRY PETERMANN, RD 2, Narrowsburg, N. Y., will trade or sell 22 NYC area trolley pix, $1.50; 3 Mt. Beacon Incline Ry., size 620, 25c. Wants size 620 pix any lines, esp. Fairmount Park, JATS, B&QT.

(R) JACK N. PFISTERER, 612 N. First St., Arkansas City, Kans., wants *Railroad Magazine,* Sept. '45, Jan. '46; *Model Railroaders, Trains* various dates, write for list; has few *Model Railroaders* to trade '42, '46.

(R) E. D. RAHDE, Box 135, Irwin, Pa., will trade *Railroad Magazine,* Dec. '41, Apr. '42 to Aug. '45, Feb. '47 to date, all excell. cond., for 2x2 slide projector or old *Model Railroaders* prior to '39.

WM. R. RANGER, 3018 Blatz St., Philadelphia 21, Pa., will sell p.c. size pix Rdg., B&O, PRR, some traction. Send 10c and stamped env. for list or state wants.

ADDISON A. SCHWALM, 26 Gloucester St., Apt. 6, Ottawa, Ont., Canada, will trade size 116 loco pix CN, CP, smaller rds. for foreign, U.S., Canadian rds.

J. SHAFER, 700 Cottage St., Waterloo, Ia., wants old rr colored p.c.'s; old steam thresher, farm implement and auto cats; old watch fobs.

(*) DONALD SNELGROVE, 17 Olin St., Windsor, Conn., wants pix, negs. Hartford, Conn. trolleys; also Springfield, Mass Send lists, sizes, price.

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(*) ROBT. M. SOKOL, 1229 B Linden Ave., Long Beach 13, Calif., wants CERA bulletins '39, B-6, B-8; '41, B-35, B-37, B-42; '43, B-44; '47, B-69.

R. P. SUMMERS, 104 Herman St., Buffalo 12, N. Y., will swap size 616, pref. locos, ships, city pix all over world; all pix accepted.

(R) R. J. SWEENEY, 406 Fairmont Ave., Fairmont, W. Va., desires back issues *Railroad Magazine* esp. article called *Rat Hole Div. of the Southern* written by H. G. Monroe in '38 or '39. Send C.O.D.

MICHAEL J. VAIUSO, Jr., 54 Arch St., Amsterdam, N. Y., will send list for stamp of tts., stickers, *Model Railroaders, Lionel* catalogs, other books, mags. Has pix size 616, 18 for $1 var. rds., list, 2 samples 15c. Few N. Y. State *Freedom Train* pix; two 8x10, $1 pp.

(R*) R. D. VALESANO, 2802 N. 61st St., Milwaukee 10, Wis., will sell *Railroad Magazine, Railway Age, Elec. Ry. Journal*, all good cond.; negs., tts. TMER&T Co. Send for list.

(*) ROBT. VAN BUSKIRK, 120 Chestnut Ave., Jersey City 6, N. J., will sell Kodak Sr. 6-16 camera, good cond., $18; size 120 box camera, $1; sells elec. pix size 116, 10c ea., 14 for $1. List, sample 10c. Wants western negs.

JOHN WEIGHTMAN, PO Box 696, Sacramento, Calif., has few good clear p.c. pix old SP McKeen pass. motor car No. 1, 10c ea.

WM. A. WILKES, 1297 Highland, Colton, Calif., buys, sells and swaps 35-mm. double-frame stereo, Radex or equiv., transparencies, steam. Has SP, WP, ATSF, M&ET, AE, PE; wants any other area or will exchange for photostat privilege, *Loco Cycl.* prior to '38.

Model Trading Post

JOHN P. BARBER, 672 18th Ave. S., Clinton, Ia., will sell 10 Varney frt. cars incl. caboose, 2 pr. Megow pass, trucks, 24-ft. Midlin rail kit, none used, all HO gage plus repair pts. for cars, $25 pp.

S. BLANC, 1350 Tennyson St., Denver 4, Colo., will sell O-gage interurban with pantograph pickup, wheels for tinplate clearances $10; also has S-gage 0-4-0 slope-back tender switcher built from AF chassis (runs on AF trk.) 2-rail, $10; guaranteed to be excell. cond.

HARRY BROWN, 216 Fourth Ave., Huntington Sta., N. Y., has HO loco kits, never used, power pack, prewar Lionel frt. set. List for stamp.

CHARLES E. DAVIS, 569 W. 18th St., Chicago, Ill., will pay $20 for Lionel 00-gage, 2-rail *Hudson*, super detailed with or without motor and whistle.

F. DiSANTIS, 618 Chapel St., Schenectady, N. Y., has set 6 drivers for live steamer ¾ in. *Pacific*, 5 in. dia., all machined and quartered on axles, used, good cond., $15.

R. L. DUCKWORTH, 303 Vester Ave., Ferndale 20,

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C. P. HUTTON, 130 Paget Rd., Pype Hayes, Birmingham 24, England, wants to contact model rr builder to exch. 00 gage for English 00; wants to trade English loco pix and catalogs for circulars of Am. model rr cos.

GILES HEUER, 1701 13th St. W., Bradenton, Fla., will sell 23 str. sec., 36 curved secs. Lionel 0-gage trk., 15c sec.; 18 str., 10 curved secs. Lionel 027 trk., 10c sec.; good cond.; all for $10.

DR. KOWAL, 1846 W. Cullerton St., Chicago 8, Ill., will sell Weeden Dart toy loco tender and coach.

A. KUCKS, 131 Highland Blvd., Brooklyn, N. Y., has AF 3/16 in. Pacific, smoke, cars, trk., transf.; also std.-gage Lionel. List for stamp.

BRUCE LANE, 1315 Vassar Dr., Kalamazoo, Mich., wants to buy std.-gage eqpmt.; tinplate catalogs.

ALVIN LAUFFER, Laraway Rd. 1, Elwood, Ill., will sell or trade TT, S-gage eqpmt. for HO gage. Send for list, prices.

HENRY LOIDOLT, 3833 S. Ridgeland Ave., Berwyn, Ill., will trade HO eqpmt., Barr-Nixon switcher kit, HO locos, cars, kits, transf., Manson lathe, guitar, typewriter. Wants U.S. stamps, new Lionel Diesel or offer.

ROSS E. MORRIS, 19 El Camino Real, Vallejo, Calif., wants 00 gage K-2323 Scalecraft G-E power truck, in kit or built up.

J. MURRAY, 144 High St., Wareham, Mass., will sell large live-steam, coal-burning 4-6-2, tender, 14½-in. trk. gage, scale built, two 15-ft. steel coaches, pass. cap. 30, amusement park or private est. Pix, details, 25c coin.

FRANK O'DONNELL, c/o Lt. Col. O'Donnell, HdQts. 5020th Wing, Davis Air Force Base, APO 980, c/o Postmaster, Seattle, Wash., will sell HO-gage traction layout, incl. cars, overhead, trk., elec. eqpmt., other miscell. items. Send for list, price.

GEORGE M. ROBINSON, Measurement and Analysis Branch, Proof Test Div., Bldg. 10, Eglin Field, Fla., will sell Lionel std.-gage eqpmt., excell. cond. List for stamp.

O. D. SCOTT, 9411 Alverstone, Los Angeles 45, Calif., will sell for $25 (½ to 2/3 orig. price) TT-gage cars, trk; cars in kit or semi-finished form, coach, box, auto, tank, hopper, caboose, few ft. rail, ties. Send stamp for info.

O. L. SIMCOX, 107 Acadamy Lane, Upper Darby, Pa., has hard-to-obtain jazz records to trade for Varney dockside switcher or other HO eqpmt.

(R) E. N. SMITH, 2021 Grey Ave., Montreal 28, Que., Canada, wants *Railroad Magazines* Jan., June-Aug. '48; Jan.-Mar. '49; *Trains*, Jan.-Mar., Aug., Sept. '49; CN, CP pix any size, any American rd. size 116, 120, 616. Has some CN, A&P, QC maps, many tts.

(R) R. N. STALL, 4466 Central, Indianapolis 5, Ind., has *Railroad Magazine*, Dec. '48; *Model Railroader* '41-44; *Trains*, Oct. '47-Oct. '48. Wants Robertson's *Slow Train*, out-of-print R&LHS bulletins, B Cyc '25, 28, '31, '43; *Dict.* any exc. '12, '06; *Loco Dict.* '06; *Model Railroader* '35, '36.

THOS. TABERN, PO Box 134, Lake Bluff, Ill., will sell unmade *Strombecker* HO kits selling for ½ store price, nearly all incl. directions to add motor or trucks to make operating HO models.

ROBT. VAN BUSKIRK, 120 Chestnut Ave., Jersey City 6, N. J., will sell 0-gage tinplate trk., 46 secs. Lionel OC curved, 25 secs. Lionel OS str., 1 pr. 021 switches, other miscell. eqpmt. List for stamp.

D. F. VAN STEE, 353 Quimby St., NE, Grand Rapids 5, Mich., will sell new built up Varney F3 Diesel A unit, $18.

(R) PATRICK R. WHITEFIELD, 12831 Lincoln Ave., Highland Park 3, Mich., has 6 secs. Gilbert S-gage trk., wrecking car, *Railroad Magazine*, Feb. '49, poor cond. but compl., readable and Sept. '49, good cond.; *Air Scout Manual*; will accept best offer in Gilbert S-gage eqpmt.

Flagstops

FANTRIP FOR 1950. Lower Mainland Railroad Club of Vancouver is making advance plans for a CPR trip from Vancouver by tourist sleeper to Glacier, a hike over Rogers Pass loop, then by rail from Donald to Fields, B.C. with 2 days on Field Hill. Anyone interested in going along may write Ernie Plant, 3226 E. 26th Ave., Vancouver, B.C., Canada, for further information.

Kentucky's Abandoned Railroads (No. 10) is now available to collectors of historic information abut these little-known Kentucky pikes. Once again E. G. Sulzer mixes lore and corporate history, this time of the Brooksville & Ohio River road and the Flemingsburg-Hillsboro line. Copies may be had for 50c each by writing *Kentucky Engineer*, University of Kentucky, Lexington 29, Ky.

Let Me Set You Up For BIG PROFITS In '50!

RUN THE BEST "SHOE STORE BUSINESS" IN YOUR TOWN!

Free! SELLING OUTFIT!

PUT A "SHOE STORE BUSINESS" RIGHT IN YOUR POCKET . . . YOU DON'T INVEST A CENT . . . MAKE BIGGER PROFITS . . . NO STORE OVERHEAD... EXCLUSIVE SALES FEATURES BUILD YOUR REPEAT BUSINESS

You Don't Invest a Cent! . . . Everything Furnished *FREE!*

You have a profitable "shoe store business" right in your pocket! You have none of the expenses of rent, clerk hire, light, fixtures, etc., of the ordinary shoe store. You are independent—you have an opportunity to make BIG MONEY as long as you care to work, in a business for which there is never-ending demand, because EVERYONE WEARS SHOES. You'll get repeat business from satisfied customers, and even if you start in Spare time, you soon should have an ever-growing, profitable Full-time business that you own 100%.

OVER 150 FAST SELLING STYLES FOR MEN AND WOMEN

You can satisfy the needs and taste of almost every person in your territory — you sell footwear in the finest leathers, latest styles and with exclusive comfort features that cannot be found in retail stores. You offer men and women the best values on the market with a line of over 150 top quality dress, work and sport shoes. The huge demand for our line makes it possible for us to keep our prices down — even lower this year — despite rising leather costs! These savings through tremendous production are passed on, through you, to the folks in your territory.

Guaranteed by Good Housekeeping

GOOD HOUSEKEEPING SEAL OPENS DOOR

Recognized by women all over the world as the symbol of quality merchandise, the Good Housekeeping Seal of Approval on Mason Velvet-eez shoes opens doors for you and clinches sales.

EXTRA PROFITS SELLING CLOTHING

In addition to the generous profit you make on every pair of shoes, you have an opportunity to ADD TO YOUR INCOME by selling top quality Leather Jackets, Wool Shirts, Raincoats for men and women.

HUGE NATIONAL ADVERTISING PROGRAM BACKS YOU

● You get the benefit of big, powerful ads in scores of magazines like Saturday Evening Post, Good Housekeeping, etc. People know Mason—are eager to get the special Personal Fitting Service we advertise for your benefit. And remember, we pay for all this advertising—it doesn't cost you a cent.

LEO DE MATO, WHO AVERAGES SIX SALES PER DAY, SAYS:

"I have accumulated over 643 customers. The Mason line with commissions up to $3.00 a pair is really SWELL! Not only am I anxious to sell these excellent shoes because it gives me the means to a more comfortable living for my family, but also, I am my own boss with no restrictions or time to account for."

EXCLUSIVE FEATURES

Velvet-eez **AIR CUSHION** CLINCHES SALES FOR YOU!

When you sell this line, you sell FEATURES—features that no other shoe man can offer the folks in your territory—like this wonderful EXCLUSIVE Velvet-Eez AIR CUSHION that brings day-long comfort to men and women who are on their feet on hard floors and pavements from early morning to late night. The Velvet-Eez Demonstrator you'll get free in your Sales Outfit will clinch sales for you as it has for hundreds of other Mason Shoe Men all over the country!

DON'T DELAY

RUSH THE COUPON NOW!

Mason Shoe Mfg. Co.
Dept. M-355, Chippewa Falls, Wis.

Set me up for BIG PROFITS in '50! Rush me FREE Selling Outfit featuring Water Buffalo, Zipper and Air Cushion Shoes, Leather Jackets, other fast-sellers. Show me how National Advertising makes more customers and profits for me. Send everything Free and Postpaid. (My own shoe size is .....)

Name .....

Address .....

Town ..... State .....

MASON SHOE MFG. CO.

Dept. M-355, Chippewa Falls, Wis.

Millions of bottles are bought
by men who like that

clear
clean
taste

Taste is mighty tough to put into words. But take one look at the delighted gleam in Br'er Rabbit's eyes and you'll appreciate what we mean by "clear, clean taste". It's that clear, clean taste that has set millions of men calling for PM.

PM

BLENDED WHISKEY

National Distillers Products Corporation, New York, N. Y. Blended Whiskey. 86 Proof. 67½% Grain Neutral Spirits.